THE UNIVERSITY AND THE MEDICAL SCHOOL:

A VIEW OF THE RELATIONSHIP AT STANFORD

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PREFACE

Although the 92 medical schools associated with universities in the United States and Canada are reputed to pose special problems for universities which have them, no study of the relationship of a university to its medical school is available. This report attempts to provide a background for understanding the interactions which occur and the problems which arise as a result of incorporating an academic medical center into the campus life of Stanford University.

The report is divided into three sections. The first section is a brief introduction to the history of the relationship of universities and medical schools in Western Europe, the United States, and at Stanford University. The second section explores the relationships which occur in the areas which are common to the medical school and the balance of the university, i.e., teaching of registered students, research, and university service. The third section presents the problems that the university and the medical school face in their relationship with particular emphasis on those arising from providing patient care as an integral part of the academic program of the medical school. The immediate effect of this patient care responsibility on the faculty and administration of the medical school and its subsequent impact on the university are explored.

The opportunity to develop this document was provided by the University Fellows Program and the Ford Foundation. When appropriate, and insofar as possible, data will be presented either within the text or in the appendix to document the type, extent, and magnitude of the interactions between the university and the medical school and the factors which influence them. While most of the data presented are current, when current information is not available, data from previous years are used when they could provide some insight into the interaction involved. The data developed for this document are collated from multiple sources throughout the university and medical center and where possible those sources are cited.

In addition to the reference documents, faculty members and administrators in the university community both within and outside of the medical school were

interviewed and the author would like to take this opportunity to thank those interviewed as well as those who contributed specific data (Appendix A). The data were collated and initial drafts of the report prepared in late 1975. The project was larger and more complex than initially envisioned and the final manuscript was completed in August, 1976.

The author's relationship to Stanford University and the medical center began 43 years ago and has passed through the stages of professor's child, undergraduate student, medical student, resident physician, faculty member, and director of the diagnostic division of the department of radiology. Curiosity about the relationships between the university and the academic medical center grew naturally out of this long relationship.

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I. THE UNIVERSITY AND THE MEDICAL SCHOOL: HISTORICAL PERSPECTIVE

A. EUROPEAN MEDICAL EDUCATION (Ref. 1, 2, 3)

The medical school which flourished at Salerno, Italy, in the 10th Century and the university which developed from it began before there was a faculty of law at Bologna or theology at Paris and represented a significant point in the relationship of medical schools and universities. Since the development of the school of medicine at Salerno, all continental medical schools have been part of a university. Medicine developed, however, as a traditional craft and apprenticeship or preceptorship was the traditional mode of education. The university-educated doctors formed only a very small percentage of the practitioners of the healing art. Paris had only six such doctors in 1296 and only 32 in 1395. These doctors were secure and did not depend on fees, since they were either clergy or city appointed, but they could not provide medical care for the general population.

University medicine, however, represented the best of medicine at most times and in most places from the era of Salerno onward. The university provided the framework within which a more effective type of medical education could be developed. It was generally true of medieval universities that the substratum of all things was the group of disciplines called the liberal arts. A study of liberal arts was everywhere a prerequisite for admission to the study of medicine. The connection between the arts and medicine increased from the 13th Century on as the biological works of Aristotle began to play a great role in the arts faculties. Medieval and renaissance medical faculties had the same goals as university faculties, that is, the recovery of ancient knowledge and scholarship. At Oxford, where medicine can be clearly separated from the other faculties in about the 14th Century, almost all students and teachers of medicine were theologians and followed a long course of study in the faculty of the arts. At that time the medical school at Oxford was an integral and coordinate part of the university. In the early university era there were professors of practice and professors of the theory of medicine. Yet as early as 1389 in Vienna visiting the sick in the company of a member of the faculty for one year was a requirement for a medical degree. This was also true at Freiberg

and at Basle. The practical character of medicine had imposed itself on the purely scholastic pattern of university teaching in at least a few universities as early as the 14th Century. In continental Europe medical schools were university oriented; while in 18th Century England they became hospital oriented. Although the dividing line between learned medicine and practical medicine grew sharply as a result, a genuine respect for medical learning persisted. This was fostered by the development of new anatomy in the 16th Century, new physiology in the 17th Century, and the growth of pathology in the 18th Century.

At Goettingen, the 18th Century university professors of medicine first received official encouragement to undertake research. Yet the medicine of the hospital and the practitioner was still to enjoy its greatest triumph in the early 19th Century in the school of Paris. In the reform of the German universities, however, Wilhelm von Humboldt saw no other setting than the campus of a university for the medical school. It was in Germany then that science and medicine were joined firmly to the universities and the university-connected hospitals and that research was infused into medical education.

B. AMERICAN MEDICAL EDUCATION (Ref. 1, 2, 3, 4)

At the same time that German medical education was attaining new heights, American medical education was reaching its nadir. The deficiencies of the proprietary medical schools in America were evident before the middle of the 19th Century. Realization of these deficiencies played a major role in the establishment of the American Medical Association, in the beginnings of the American Medical College Association which was revived in 1890 as the Association of American Medical Colleges, and in the preparation of the report by Abraham Flexner on medical schools in 1910. Flexner took Johns Hopkins as the model for medical education and urged the provision of full-time staff, laboratory, and hospital facilities so that teaching and research could be combined. He endorsed medical education as a university function. The report named and described conditions in the nation's medical schools and it resulted in the merging or closing of 102 schools by 1920. Five years after publication of the report, 85 schools required a

minimum of one or two years of college preparation; ten years earlier only five schools had required any college preparation for admission. The Flexner report was strong but effective medicine.

Pressures for better quality medical care have taken medical education from the single preceptor, to the hospital and bedside, and to a partnership with the university. As noted by the medical historian Stevenson:

> In the partnership between university and medical school, the quality of each participant is affected in a large measure by the quality of the other...If the objectives of university and medical school are essentially the same--as they were during the fourteenth and fifteenth centuries in Paris, Montpellier, Padua, and Oxford, or during the nineteenth century in Berlin, Leipzig, Munich, and Vienna--all is well, and more than well, with both. But if, as in early nineteenth century Oxford the pace and purpose of university education are widely different from those the times require of medicine, the association will be less than happy and less than fruitful. (Ref.1)

C. STANFORD UNIVERSITY SCHOOL OF MEDICINE (Ref. 5, 6, 7)

The school of medicine which was to become Stanford University School of Medicine evolved from the first medical school on the Pacific Coast founded in San Francisco by Dr. Elia Samuel Cooper, M.D. in 1858. It was academically chartered as the Medical Department of the University of the Pacific. In 1870, the school was reorganized by Dr. Levi Cooper Lane and in 1872 severed connections with the University of the Pacific and became the medical department of the University (City) College, San Francisco. This medical department was known formally as the Medical College of the Pacific. In October, 1882, the Medical College of the Pacific, with its faculty and its students intact, became Cooper Medical College. The new school was founded by Dr. Lane in memory of his uncle and occupied a building erected by Lane for this purpose at the corner of Sacramento and Webster streets in San Francisco. A new hospital was erected adjacent to the medical school in 1893. Following the death of Dr. Lane in 1902 the library of medicine and surgery was created in 1906.

Medicine has commonly formed a part of subsequent expansion of universities and this also occurred at Stanford. In November, 1908, Cooper Medical College, its properties and equipment were granted to Leland Stanford Junior University by the board of directors of the Cooper Medical College Corporation. The president of Stanford University at that time was Dr. David Starr Jordan. On January 1, 1911, Dr. Ray Lyman Wilbur became dean of the medical department faculty and on January 22, 1916, Dr. Wilbur became university president. In July, 1953, Stanford's board of trustees made the decision to move the medical school from San Francisco to the university campus near Palo Alto, where new buildings were to be constructed. In June, 1957, first construction activity was begun for the Stanford Medical Center, with excavation for the Palo Alto-Stanford Hospital. Dr. Robert Alway was named dean in February, 1958, and in August, 1959, the first patients were admitted to the Palo Alto-Stanford Hospital. In September, 1959, the first medical school classes began in the new medical school buildings on campus.

In the forward to the booklet "Medical Care, the University, and Society," (Ref. 7) J. E. Wallace Sterling, president of the university at the time of the move to campus, stated:

> Central to this new Stanford program is the concept that the future progress of the medical sciences is inextricably linked with progress in the basic physical and biological sciences and increasingly with progress in the social sciences. It followed that the Medical School should be so located and organized as to promote the closest possible relationship between teachers, investigators, and students in all these fields. It followed also that opportunities for enriching the general education of the medical student would be greater if the Medical School became physically and philosophically an integral part of the University.

II. THE UNIVERSITY ENVIRONMENT

Of the 117 medical schools in the United States and Canada, 92 are university affiliated. Of these only 28 are based on the main campus of the parent university. The major benefit in moving the medical school from San Francisco to the Stanford campus was felt to be the bringing of medical education more directly into a university environment. Development of closer relationships with the humanities and sciences as well as the other professional schools, it was hoped, would broaden the educational program at the medical school and introduce a flow of attitudes, knowledge, and values of medicine into the education of other students. As noted by the medical historian Stevenson, when the goals of the university and the medical school coincide, strong mutually beneficial interaction can result. The goals of teaching, research, and university service are common to all schools of the university while patient care is not. The relationship of the medical school to the rest of the university in the areas common to each will be explored first.

A. TEACHING

The medical school has teaching responsibilities which extend beyond students registered at Stanford University. These include the teaching of interns, residents, research and clinical fellows, and practicing physicians who need and desire continuing educational courses both in basic science and clinical medicine.

This section deals only with those students registered at Stanford University. These include undergraduate and medical students, as well as candidates for Master's and Ph.D. degrees. The total number of students at the university in 1974-75 and their distribution is summarized below (and described in greater detail in Tables 1 and 2):

School	Enrollment*
Business	681
Earth Sciences	232
Education	561
Engineering	2,139
Humanities & Sciences	4,919
Law	429
Medicine	549
Unaffiliated & inter-school programs	110
Major undeclared	2,629
	12,249

The distribution of students at the medical school is as follows (see Tables 1 and 2 for additional information):

	Enrollment*
Biochemistry	23
Genetics	9
Health Services Administration	7
Hearing & Speech Sciences	7
Medical Microbiology**	46
Neuro- & Biobehavioral Sciences	27
Pharmacology	10
Physical Therapy	43
Physiology	3
M.D. Program	374
	549

It is interesting to note that, while a medical school is usually regarded as a school primarily for the training of physicians, in 1974-75, the Stanford Medical School granted 65 non-M.D. degrees (11 A.B./B.S. degrees, 40 A.M./M.S. degrees, and 14 Ph.D. degrees) and 81 M.D. degrees (Table 3).

* Undergraduate, graduate, and terminal graduate students. (Postdoctoral fellows were not registered as students until 1975-76.)

** Only program with undergraduate enrollment (27 students).

The teaching effort of the medical school faculty with respect to university-registered, non-medical-school-based students occurs both in courses taught at the medical school and in those taught outside the medical school.* In 1973-74, a total of 17,718 units were acquired by such students in courses taught by medical school faculty (3,455 in medical school courses and 14,263 in courses outside the medical school). For comparison, students in the medical school acquired a total of 22,500 units in courses taught by medical school faculty during 1973-74.

Assuming a standard of 45 units of course work a year for a full-time student, the medical school faculty taught the equivalent of 77 full-time non-medical-school-based students at the medical school in 1973-74. Fifty-seven percent of the total units were earned by undergraduate and 43 percent by graduate students.** The majority of the units were acquired by students majoring in human biology, biological sciences, and chemistry.** The medical school faculty teaching the courses in which most of the units were obtained were in the departments of biochemistry, medical microbiology, psychiatry and behavioral sciences, anatomy, and family, community, and preventive medicine.**

The equivalent of 317 full-time non-medical-school-based students were taught by medical school faculty in courses based outside of the medical school. Seventy-nine percent of the units were acquired by students enrolled in human biology or psychology department courses taught by medical school faculty. Five percent of the units acquired were in freshman seminars; four percent in biological sciences department courses. The medical school faculty involved in the majority of units taught were in the department of psychiatry and behavioral sciences, genetics, and pediatrics.

* Compilation of this data has not been undertaken on an annual basis. Some studies were undertaken in 1972-73 (Table 4) and a more complete survey done in 1973-74 (Tables 5 and 6). Comparisons of data for the two years suggest that it is not inappropriate to consider that the trends identified continue to be present.

** 1972-73 data; not compiled in 1973-74.

The teaching effort of the university faculty outside of the medical school directed at students registered in the medical school is described in Tables 5 and 7. The university faculty outside of the medical school taught the equivalent of 53 full-time medical-school-based students in 1973-74. Fifty-two percent of the total units were taken by undergraduate and 48 percent by graduate students. Almost all of the undergraduate units were acquired by students majoring in medical microbiology. Only 39 percent of the graduate units were acquired by students registered in the M.D. program. The departments teaching the courses in which most of the undergraduate units were obtained were biological sciences, chemistry, and physics. The departments or schools teaching the courses in which most of the graduate units were obtained were business, biological sciences, and psychology.

Although medical schools generally determine the prerequisites for admission to medical school (and thereby impose a rather awesome undergraduate teaching volume on some departments of the schools of humanities and sciences), it is not customary for medical schools to teach undergraduate students to any significant degree. The data indicate this is not the situation at Stanford.

The most dramatic educational innovation associated with the presence of the medical school on campus is the human biology program. This is an interschool program initiated in 1969 by a grant from the Ford Foundation under the direction of eight senior faculty members from the departments of biological sciences, genetics, pediatrics, psychology, psychiatry and behavioral sciences, and sociology. The program is administered by the dean of undergraduate studies. It was first offered in the spring of 1970 and was immediately popular (427 students preregistered) and has continued its popularity probably because of its broad view of the evolution of man and his place in nature. In addition to the departments involved in the program's founding, it now also includes faculty from chemistry, civil engineering, economics, food research, medicine, and political science. Twenty-five faculty are involved yet each is based in his regular department. The faculty member's department represents a base for research, writing, and teaching. Since the program relies quite heavily on senior faculty in the medical school and because there are no graduate students or research based in human biology per se, the commitment of the involved

medical faculty to undergraduate teaching is clear.

A less dramatic but significant contribution to undergraduate teaching is made by the department of psychiatry and behavioral sciences outside of the human biology program. These teaching commitments developed on an ad hoc basis as a result of faculty knowledge in subject areas of common interest particularly with the department of psychology and the school of education.

The faculty of the medical school also participates in the freshman seminars, SWOPSI, and SCIRE and a partial listing of the undergraduate offerings and the departments involved is given in Tables 8 and 9. Eighteen of the 87 seminars for entering freshman students offered in 1973-74 were taught by medical school faculty.

Four examples of programs for graduate students where faculty from the medical school join with faculty from departments in other schools of the university to provide both teaching and research opportunities are described below.

The neuro- and biobehavioral sciences program involves the departments of biological sciences and psychology with anatomy, anesthesia, genetics, neurology, pathology, pharmacology, physiology, psychiatry and behavioral sciences, and surgery. The program is designed to lead to a Ph.D. in neuro- and biobehavioral sciences and nonmedical graduate students, post-M.D. students, and medical students are eligible for the program. In the 1974-75 academic year, 38 students were enrolled in the program.

The Master of Science program in Health Services Administration is designed to educate physicians, administrators, engineers, and others in the administrative and analytical skills essential to delivery of health services. The major areas of operation are in health economics, organizational behavior and health sociology, and health policy and planning. The faculty includes members of the schools of business and engineering, the departments of anthropology, communication, economics, engineering-economic systems, industrial engineering, and sociology, and the departments of family, community, and preventive medicine, medicine,

psychiatry and behavioral sciences, and surgery. In the 1974-75 academic year 16 students were enrolled in the program.

The bioengineering program deals with engineering theory and practice applied to improve health care and engineering technique applied to provide insight into the formulation and solution of selected biological problems. This program involves the school of engineering and the departments of computer science and mathematics with the medical school departments of family, community, and preventive medicine, gynecology and obstetrics, neurology, psychiatry and behavioral sciences, radiology, and surgery.

The medical scientist training program is designed to provide selected medical students with specialized training in biomedical research while they are candidates for the M.D. degree. The program emphasizes the wide scope of biomedical research allowing students to develop their interest in interdisciplinary fields. Currently the faculty includes members from the departments of biological sciences, chemistry, computer science, and psychology as well as anatomy, biochemistry, genetics, medical microbiology, medicine, pathology, pediatrics, physiology, psychiatry and behavioral sciences, and radiology. Twenty-seven students were enrolled in the program for 1974-75.

Another graduate interdisciplinary endeavor is the graduate specials program. In 1973-74 there were 10 graduate special program degrees granted. Seven of the 10 incorporated 13 medical faculty on their advisory boards. In the last few years two joint Ph.D.-M.D. degrees have been granted through this program; one in medical information systems and the other in biomedical engineering.

The joint undergraduate teaching and graduate teaching and research programs described in this section have resulted when faculty have common interests. When these common interests are particularly strong they may be recognized not only by cooperative efforts in teaching and research but also by joint appointments in the departments involved. These appointments may be given by departmental courtesy or with full academic review and represent formal recognition of the importance of the academic interaction (Table 10).

B. RESEARCH

Interaction of the medical school faculty with faculty throughout the rest of the university in research, as in teaching interactions, is a result of mutual interest. Such interactions occur in small seminars, ad hoc consultation, or use of facilities, and in more formal relationships as consultants to funded projects and as co-investigators. Some joint teaching programs such as bioengineering and the medical scientist training program include joint research projects as a basic component of the program. Sponsored scientific research at the university is largely done on an individual basis with little formal interaction even between departments in the same school.

The total sponsored research for the university and for each school for 1973-74 is given in Table 11. The funded sponsored research based in the medical school and involving either a co-investigator or designated consultant in another school in the university is given on Table 12. Eighteen such projects utilize 21 faculty from nine departments in other schools. Fourteen faculty from other schools are principal or co-investigators and seven are consultants. The departments include physics, chemistry, biological sciences, statistics, chemical engineering, electrical engineering, computer science, communication, and sociology. These projects involved $4 million in total costs (direct and indirect). Six proposals for sponsored research at the medical school involving formal interaction with faculty in other schools were submitted but did not receive funding for 1974-75. These projects involved 12 departments and 18 faculty in other schools and while not funded that year, represent significant efforts at cooperation in research (Ref. 8).

This attempt at documentation of interschool research involvement is not complete and underestimates the magnitude of the interaction by an unknown factor. Table 12 does not include funded sponsored projects by medical school faculty with joint appointments in other schools where they were the only investigator. No survey of cooperation in research for sponsored projects not in the files of the sponsored projects office of the medical school or for non-sponsored projects was attempted.

C. UNIVERSITY SERVICE

University services are those voluntary duties performed by the faculty and staff which are necessary to the functioning of the university within its collegial governance framework. These include such functions as participation on university committees, student advising, participation in university service organizations, aiding in faculty recruiting, and fund raising. Some of these activities are done on an ad hoc basis (e.g., faculty recruiting and fund raising) and are difficult to document.

1. COMMITTEES AND ORGANIZATIONS

A distillate of the roster list of university committees for 1974-75 published by the office of the academic secretary is given in Table 13. This table lists the number of medical school faculty and staff participating on the major university committees and organizations. In addition to the number of faculty and staff participating it is of interest to note the variety of committees involved.

2. UNDERGRADUATE ADVISING

Since approximately 18 percent of all Stanford undergraduate students define themselves as "premedical students", approximately 280 in each class (or 1,120 students) require premedical advising. Each of these students has a medical faculty advisor.

There are 319 university advisors for undergraduate students who have not declared majors (approximately 40 percent of the undergraduate students). Of the 319, 56 or 17 percent are medical school faculty members. Twenty-nine percent of the remaining advisors are staff members and 54 percent are faculty members outside the school of medicine. Thus the medical faculty who serve as advisors to undergraduate students who have not declared majors represent 24 percent of all faculty who serve as advisors for these students.

The results of the undergraduate premedical advising program are of some interest. A total of 227 Stanford graduates entered a medical school in 1973-74. This was the second highest number of graduates from a single institution admitted to medical school in the United States. The largest number of student graduates admitted to medical school that year was 283 from the University of Michigan. Michigan has an undergraduate junior and senior student population of 10,432 while Stanford has only 3,164. The American Medical College Application Service (AMCAS) figures show that 415 Stanford graduates applied to medical school in 1973-74. Of those, 272 were accepted and 50 withdrew before action was taken on their applications. If one assumes that the 50 applicants were accepted by non-AMCAS schools, Stanford has an accept ratio of 78 percent. If the 50 candidates who withdrew are disregarded, Stanford's accept ratio is 75 percent. Assuming these 50 candidates were not admitted to any medical school gives a 66 percent accept ratio for Stanford students. The national accept ratio is approximately 33 percent (Ref. 9).

3. OTHER

Another area of service that the medical school offers the undergraduate student is premedical job opportunities. Every fall, the academic information center solicits the support of medical school faculty in providing voluntary or paid jobs for undergraduates. In 1974-75, 75 jobs were made available at the medical center to undergraduates.

In addition to serving as advisors for undergraduate students and students with graduate special majors, the medical school faculty provides chairpersons for many oral examinations for Ph.D. candidates. Medical school faculty served as chairpersons for 69 of the 502 oral examinations given during 1973-74. This service is particularly helpful to the university during the summer months when many of the non-medical school faculty are not on campus.

Interviews with several faculty and administrators indicate that there have been cooperative efforts by distinguished faculty both within and outside of the medical school to attract other equally distinguished faculty to

departments or schools in the university when such opportunities exist. Similar cooperation has occurred in fund-raising efforts where the reputation of the one school has initially attracted a donor who eventually gave to another school.

III. PATIENT CARE - THE ORIGIN OF CONFLICT

This report has concentrated to this point on describing and documenting where possible the cooperation that occurs in activities (teaching, research, and university service) common to the medical school and to the university at large. The responsibility of providing patient care, however, is unique to the medical school and it affects not only the perception of the medical school by university faculty and staff outside of the medical school but also the perception of the rest of the university by the medical school faculty and staff. The following section of this report will focus on the immediate effect of patient care responsibility on the medical school and its subsequent impact on the rest of the university.

A. THE MEDICAL SCHOOL AND ACADEMIC MEDICAL CENTER

As medical education evolved, it became clear that preparation for the practice of medicine required not only course and book learning but also practical education in the art of applying that knowledge to the individual sick patient. When medicine became largely hospital-based in England, the teaching of medical students moved into the hospital and close association with patient care. The hospital then became, in effect, the practical classroom for the medical student and later, as research developed in Germany, also a laboratory for medical research. It is this role of the hospital, with its outpatient clinics, as necessary classroom and laboratory that distinguishes the medical school from other departments and schools in the university. The modern medical school is in reality an academic medical center which has not only classrooms, offices, and research laboratories in the usual university sense of a school to teach the theory of medicine but also a hospital, outpatient clinics, and all the support facilities necessary to their operation to teach the practice of medicine, conduct research in human disease, and provide health care to the region in which they are located.

The setting for medical education has thus become increasingly complex. Federal support for medical research grew from less than $10 million in 1950

to more than $400 million in 1972. Expenditures for the regular operating programs of medical schools increased from $200 million in 1961 to $780 million in 1971 and expenditures for all sponsored programs increased from $220 million to $930 million. Medical schools have become a multibillion dollar operation (Ref. 10). University hospitals and their major teaching hospital affiliates accounted for 20 percent of all the health care provided by the nation's hospitals in 1970. This increased from less than 14 percent in 1965. The total teaching responsibilities of the medical schools increased from 65,000 students in 1961 to 110,000 in 1972. By 1972, however, medical students accounted for only two out of five students taught by the medical school faculty. Interns, residents, predoctoral and postdoctoral students in the basic and clinical sciences, and full-time students in the other health professions comprised the other 60 percent of the student population (Ref. 10).

B. MEDICAL EDUCATION AS A CONTINUUM: PREMEDICAL STUDENT, MEDICAL STUDENT, INTERN, RESIDENT, FELLOW, AND PRACTICING PHYSICIAN

Coincident with the historical development of the medical center, there was specialization of medical practice and a broadening of the concept of the education of physicians to include not only medical student education but also graduate and continuing medical education. Medical student education is just the beginning of the life-long education of the physician. Any meaningful discussion of medical education must encompass the full spectrum of undergraduate (medical student), graduate (intern, resident, and fellow), and continuing education. Most of this expanded educational role is the responsiblity of the medical school and its faculty and contributes significantly to the magnitude of the current operation both nationally and at Stanford.

The initial responsibility of the medical school in the continuum is establishing the prerequisities for entry and selecting the candidates to be admitted (Ref. 11).

Stanford Medical School requires a premedical curriculum of one year of biological sciences, two years of chemistry, and one year of physics. The school stresses that the undergraduate years should provide a liberal

education. The graduate statistics for 1974-75 for Stanford Medical School reveal that 4,973 applications were received, 245 students were admitted and 155 enrolled - an admit/apply ratio of five percent. This is the lowest admit/apply ratio of any of the graduate schools at Stanford. The 4,973 applications are 27 percent of the 18,305 total Stanford University applications for graduate study and over half the number of total freshman applicants to the university (Ref. 12). Each of the top 700 candidates for the 86 medical student positions available each year at Stanford University are interviewed by at least one faculty member of the heavily burdened medical school admission committee. The background of the students offered admission in 1975-76 is given in Table 14.

Once admitted, medical school should provide the student an understanding of the principles of human development, both normal and abnormal; training in the basic problem-solving process necessary to the diagnosis of disease in patients; basic knowledge of technical procedures to treat disease; an awareness of the techniques and resources for the prevention of disease, an attitude that will enable him or her to keep up with developments in medicine after graduation from medical school; an understanding of the scientific method, its rigors, and techniques; and empathy for patients as human beings.

The education of the medical student is divided generally into two phases. The initial two years are spent largely learning the basic medical sciences (anatomy, biochemistry, genetics, histology, medical microbiology, neuroanatomy, pathology, pharmacology, and physiology). Teaching in the basic medical sciences, like teaching outside the medical school, is largely classroom and laboratory based. Large lecture and laboratory classes are effectively used.

The final two years are spent studying the clinical sciences (anesthesiology, community medicine, dermatology, internal medicine, neurology, obstetrics and gynecology, pathology, pediatrics, psychiatry, radiology, and surgery). The teaching of clinical medicine is based in the hospital or outpatient clinic. Teaching of medical students with patients usually involves only one to six students with a faculty member. The medical students must learn to interact with the patient and there is a limit to the number of students

a patient will relate to as a teaching subject. This educational process requires a large number of patients with wide diversity and severity of illness.

The medical school educational program by the nature of its product must be global. It is not possible to omit teaching the medical student about the eye and diseases of the eye because the budget will not allow for a teacher of ophthalmology. All the aspects of modern medical care must be included in the curriculum.

The courses and types of educational opportunities in the Stanford Medical School are listed in the Stanford Medical School Bulletin, Part I. A review of this will provide some idea of the scope and magnitude of modern education of the medical student. For those readers interested in seeing and reading about what it is like to be a student during the four years of medical school, the book "The Art of Learning Medicine" by May H. Lesser, Appleton-Century-Crofts, 1974, gives an insightful overview. The author is an artist who worked with a class of medical students at U.C.L.A. for four years and the book is illustrated with her sketches.

The role of the medical student in the actual practice of medicine was initially one of passive observer in the hospital and, in order to develop practical expertise in medical care, internship and later residency and fellowship programs were developed. All of these programs are hospital based. The internship is the first year of practical patient care experience following graduation from medical school.* A residency is a postgraduate period following internship of from two to seven years spent in learning in depth the science and art of practicing a medical specialty such as internal medicine, pediatrics, surgery, etc. During the rapid expansion of medical science following the second World War, internship and residency programs became increasingly specialized. Such prolonged graduate study became more desirous and prestigious in the eyes of both the physician and the public. A review in The New England Journal of Medicine (Ref. 13) indicates that 98 percent of all graduating medical students progress into a residency program of one specialty or another. A

* The term "internship" is being phased out to be replaced by "first-year residency". "Internship" will continue to be used in this report.

fellowship is a year or two post-residency spent in learning a subspecialty of clinical medicine such as cardiology, cardiovascular surgery, hematology, etc. or devoted to further study in a basic medical science. The progression from medical student to intern, resident, and clinical fellow is one of a supervised medical practice with gradually increasing responsibility. This is accompanied by gradually decreasing supervision as the student gains experience, uses his knowledge, develops judgment, understands his limitations, and is able to accept more responsibilty. The process of clinical education is designed to bridge the gap between didactic knowledge and its application in complex clinical situations without damage to patients. The interns, residents, and fellows are students learning from the faculty, providers of patient care, and, with increasing experience, teachers of other interns, residents, and fellows as well as medical students.

The rigor with which both the scientific information and the art necessary to the practice of clinical medicine is imparted in the clinic or at the bedside has evolved a long way from its early beginnings as an apprenticeship. Medical student, intern, resident, and fellow "rounds" (patient-oriented teaching sessions with a faculty member) involve not only listening to, examining, and discussing an individual patient's problem but also a thorough discussion of the fundamentals for the various disease processes. The citing of background literature both recent or older as basis for either diagnosis or therapy is standard practice. Discussions over disputed points may only be decided by library review. Teaching "rounds" at their best are patient-disease-oriented seminars.

By historical precedent at Stanford University the intern, resident, and post-M.D. fellow* are not registered as students and do not receive a university degree upon completion of their course of study. They do receive a hospital certificate. The following table summarizes the total teaching responsibilities of the Stanford Medical Center in 1974-75 (Tables 1, 15, 16 and 17):

* The University, beginning in 1975-76 considers all postdoctoral fellows as non-matriculated students.

Registered students:	
Medical students	374
Other graduate students	148
Undergraduate students	27
	549
Housestaff:	
Interns	56
Residents (including 41 who are concurrently postdoctoral fellows)	310
	366
Postdoctoral fellows:	
In basic science departments	70
In clinical science departments (excluding 41 who are concurrently housestaff)	161
	231
Total*	1,146

Table 18 indicates the types of internships, residencies, and post-M.D. fellowships offered in 1974-75.

As noted earlier, medical schools need a large number and diversity of patients. The medical students and interns need to see and learn about the commonest diseases, i.e., diabetes, measles, stroke, coronary artery disease, etc. The resident and fellow with more experience need to see less common diseases and more complex diagnostic and therapeutic problems. The medical center must be large enough to provide all these educational experiences either within its walls or at "affiliated hospitals". Affiliated hospitals are needed by most medical schools since the number of patients available in any single hospital rarely provides the number or diversity of disease necessary to educate the number of medical students, interns, residents, and fellows needing to be taught.

Stanford Medical School has three major affiliated hospitals: the Children's Hospital at Stanford, the Santa Clara Valley Medical Center, and the Palo

* Excluding enrollees in continuing education programs and in hospital-based allied health training programs, e.g., primary care associates (physicians's assistants).

Alto Veterans Administration Hospital. These institutions form an integral part of the teaching program of the medical school. The administration, terms, and extent of services shared varies with each hospital. Each makes its own contribution to the teaching environment of the school whether that is an extended pediatric experience at the Children's Hospital at Stanford, a neurology course at the Palo Alto Veterans Administration Hospital, or high volume patient care at the Santa Clara Valley Medical Center. It is estimated that 40 percent of the patient care teaching is done at these affiliated hospitals (Ref. 14). The number of hospital beds available to students, interns, residents, and fellows at the university hospital and affiliated hospitals is seen in Table 19. A comparison of the teaching beds available at Stanford Medical School and other medical schools is given in Table 20.

Even after a young physician completes his formal period of medical education he must continue learning during his entire career to maintain his competence and keep abreast of the advances in knowledge, technology, and medical practice. Increasing public pressure for recertification of practicing physicians to assure continuing high quality care has made continuing education programs an increasingly important part of the medical education continuum.

Stanford School of Medicine has conducted a regionalized continuing educational program since 1970 (Ref. 15). The program is based on an informal federation of five regional hospitals and has been designed to allow the school to investigate the process of continuing education of physicians. Stanford sends faculty members to each of the hospitals on a regular basis. They deliver lectures, attend teaching rounds and conferences, offer consultative advice, and assist with other educational and administrative activities at the community hospitals. The program also includes two one-week courses during the year. One course deals with the latest revisions of medical and surgical management of critically ill patients. The other course is a comprehensive review of basic medical science, designed to meet the needs of practitioners whose formal education was completed years before the advent of modern biomedical science. In addition to the regionalized continuing education program, Stanford Medical School also offers many other opportunities for continuing education at the medical center. Table 21 shows the participation in all the continuing education programs.

C. MAGNITUDE AND DIVERSITY OF THE PATIENT CARE RESPONSIBILITY AT STANFORD MEDICAL SCHOOL

In order to understand the relationship between the medical school and the university it is important to appreciate the magnitude and diversity of the operation of the university hospital and outpatient clinics.

The Stanford University hospital and outpatient clinic operation is naturally centered around patients. In 1974-75, 25,247 patients stayed a total of 180,258 days in the hospital. During that same year there were 28,144 emergency room visits and 134,507 outpatient visits to the various clinics. 1,330,125 laboratory tests and transfusions were done that year. 454,819 patient meals were served and an additional 916,387 cafeteria meals were served to visitors, faculty, students, and staff. (The medical school is the only school in the university to run its own complete food service.) 33,227 electrocardiograms (measurements of the electrical activity of the heart) were performed that year and 2,212 electroencephalograms (measurements of the electrical activity of the brain). 14,638 surgical operations were performed. 351,454 prescriptions were filled. There were 14,880 physical therapy and 3,015 occupational therapy patient visits. 48,970 respiratory therapy treatments were given. 96,947 diagnostic x-ray examinations were performed. 716 cardiac catheterizations were performed with specialized x-ray examination. 28,746 x-ray therapy treatments were given and 9,384 nuclear medicine isotope procedures were performed. 15,979 tissue specimens from surgery were examined microscopically. (Ref. 16)

These patients were seen and their services provided by a hospital staff which numbered 2,637 individuals in 1974-75 (2,214 full-time equivalent employees) scattered through 88 departments. The outpatient clinic and medical school staff total 953 additional positions and the staff members with medical-center-wide responsibilities add 196 more to bring the total staff at the medical center to 3,786 (Table 22). This total excludes the interns, residents, and post-M.D. fellows as well as all other physicians. The staff at the medical center for 1974-75 is over 45 percent of the 8,293 total staff of the university (Ref. 12). The diversity of medical center staff is shown in Table 22 which lists the staff by job titles.

The Stanford and Palo Alto physician staffs for 1974-75 totaled 710. Local physicians totalling 459 and 251 full-time university faculty made up the total (Table 23). It should be noted here that of the 618 total beds in the Stanford University Hospital only 248 are allocated to university physician faculty and fully utilizable for student teaching.

The patient care services are provided in a facility with 302,000 net square feet. The school of medicine alone occupies an additional 406,000 net square feet giving a total of 708,000 net square feet in the medical center. This is 12 percent of the total academic reserve of 5,608,000 net square feet (Table 24).

The size of the operating budget for the academic medical center reflects the magnitude of the operation. In 1974-75, the total university budget, including the Stanford Linear Accelerator Center and the Stanford University Hospital, was $264.8 million (Ref. 17). The university hospital and clinic budget was $58.5 million. The medical school budget was $42.1 million. The total budget for the medical center was $100.6 million, or 38 percent of the total university budget (Table 25).

The organizational structure for the medical center (school, outpatient clinic, and hospital) is described in Table 26. It should be noted that the vice president for medical affairs and the dean of the school of medicine are the same person. This individual reports both directly to the president of the university as a vice president and to the provost as dean of the school of medicine. The organizational relationships of the medical center to the president of the university through the vice president for medical affairs and to the provost through the dean are shown in Tables 27 and 28.

Even the figures and organizational diagrams given here do not provide a complete picture of the magnitude and diversity of the operation since they do not include the patient care figures, staff, medical staff, square footage, and organizational relationships for the three affiliated hospitals (the Children's Hospital at Stanford, the Palo Alto Veterans Administration Hospital, and the Santa Clara Valley Medical Center) which are essential to the educational program.

D. MEDICAL SCHOOL FACULTY AND THE IMPACT OF PATIENT CARE

The academic departments in the medical school are divided into the two general categories of basic medical science (those without patient care responsibility) and clinical science (those with patient care responsibility). The basic and clinical science departments with their full-time faculty distribution and totals are described in Tables 29 and 30. Table 31 compares the total faculty and percent tenured at the medical school to the total faculty and percent tenured in the university.

1. BASIC MEDICAL SCIENCE FACULTY

The basic medical science departments generally have a small number of faculty most of whom have Ph.D. degrees rather than M.D. degrees. These departments are relatively stable with respect to faculty number. The university goals of excellence in teaching and research pose no greater problem for the Ph.D. or M.D.-Ph.D. faculty member in the basic medical sciences than for faculty members outside the medical school. The teaching setting of classroom lecture or small seminar and the laboratory setting are familiar to faculty in disciplines throughout the university. The time commitment to teaching and research by faculty in the basic sciences at the medical school is generally similar to that of faculty in the sciences not based at the medical school. Some advantages may accrue to Ph.D. or M.D.-Ph.D. basic science faculty members based in the medical school as the undergraduate teaching volume is probably less than in a science department outside of the medical school. Service on university committees does not pose any greater problem relative to imposition on other activities or scheduling during working hours for faculty in the basic medical science departments than for other faculty in the scientific disciplines based outside of the medical school.

2. CLINICAL MEDICAL SCIENCE FACULTY

The teaching of clinical medicine requires providing patient care which imposes a responsibility on the M.D. faculty in the clinical departments which is in addition to those shared by all faculty at the university.

While the national reputation of the Stanford Medical School is largely based on the basic and clinical science research productivity of its faculty, over 85 percent of its graduating medical students each year eventually enter into the private practice of medicine (Ref. 18). The last survey of medical graduates of Harvard Medical School indicated that a similar percentage of its graduates also entered private practice. Nationally about 95 percent of graduates enter private practice. While the Stanford Medical School emphasizes excellence in its basic science and clinical research, it has the responsibility to provide the same excellence in its patient care and teaching of clinical medicine.

3. IMPACT OF PATIENT CARE RESPONSIBILITY ON THE FACULTY IN CLINICAL DEPARTMENTS

a. DEPARTMENT SIZE AND COMPOSITION

The number of faculty in the clinical departments is based on a complex interaction of clinical teaching, patient care, and research responsibilities. The departments of psychiatry and behavioral sciences, radiology, and surgery each have about the same number of faculty as the school of earth sciences, education, or law. The department of medicine alone has about the same faculty number as the graduate school of business. Because of their responsibility for patient care, most of the faculty in the clinical science departments will have an M.D. rather than a Ph.D. degree. The broad education of the medical student in all aspects of medical care has historically been the cornerstore of medical education. National and state medical licensure examinations, by testing all areas of medical knowledge, have reinforced this doctrine. The medical school must, therefore, provide teachers in all areas of patient care. The creation of subspecialization within medicine has contributed significantly to the increase in the number of faculty and to the evolution of most medical centers similar to Stanford into large tertiary care centers (the medical centers which deal with the most complex and most specialized aspects of medical care). Subspecialization allows faculty in the clinical departments to develop comprehensive knowledge of a subject and

focus clinical and research skills to meet the needs of such a center. The distribution of faculty in clinical departments by subspecialty is shown in Table 29.

b. ROLE AS PHYSICIAN MODEL

The responsibility of the medical school is to see that the patient care provided by the faculty meets the same standard of excellence expected for the teaching and research of faculty throughout the university. The M.D. faculty member in a clinical department must strive to be an excellent physician in his chosen specialty to serve as a model for the medical student, intern, resident, and fellow. He cannot maintain his medical skills without actually providing patient care.

c. TIME COMMITMENT

The time commitment of each clinical department and its faculty to patient care is a result of historical precedent, department orientation, and the ability of the department to control its patient care volume. Some departments such as anesthesia, pathology, and the diagnostic division of the radiology department have little or no control over their daily work volume. Their patient care load is determined largely by the needs of other clinical departments such as gynecology and obstetrics, medicine, pediatrics, and surgery which refer patients either from the outpatient clinic or hospital for appropriate examinations, procedures, or operations. Since medical emergencies and disease do not respect the ordinary working day, the medical student, intern, resident, fellow, and faculty in the clinical departments interact in an educational patient care environment which continues 24 hours a day throughout the year. The medical student, who needs to see and participate in the management of patients with severe trauma, and the intern, resident, and fellow physician, who need the experience of diagnosing and treating such patients, must be in the hospital when such accident victims arrive. Since this patient care and clinical teaching through all hours of the day and night requires faculty supervision, provision must be made for the faculty to maintain patient care responsibilities throughout each 24-hour period. Regardless of the variation in time commitment to patient care, all clinical departments

share this responsibility as do all their M.D. faculty. The time commitment to patient care and teaching in the ordinary 10-hour workday ranges from 60 to 85 percent for M.D. faculty members in the clinical departments (Table 32). Since the medical student has the least direct responsibility for patient care and has other classroom time commitments, most of the faculty time devoted to patient care teaching is spent with the intern, resident, and fellow.

Less than 20 percent of the patients receiving care are involved in medical research. Only 10,000 of the 64,000 patients seen at Stanford Medical Center in 1974 were participants in a research protocol (Ref. 19). The majority of patients are seen because they are ill and require medical care and during their diagnosis and treatment are used as subjects for the education of the medical students, interns, residents, and fellows. While some interns and residents are involved in clinical research with faculty supervision, they are primarily learning their medical or surgical specialty and providing patient care. Only the fellows and a few medical students in special research programs are similar to other postdoctoral fellows in that they are involved in research under faculty supervision which results in publication.

d. AFFILIATED INSTITUTIONS

The clinical teaching need for a sufficient and diverse number of hospital and clinic patients, as noted before, has led to the utilization of affiliated institutions (the Children's Hospital at Stanford, the Palo Alto Veterans Administration Hospital, and the Santa Clara Valley Medical Center). The physical dispersal and separation of a significant number of faculty from the university hospital resource (Table 29) poses both an intellectual and physical problem for these faculty. All of these institutions are staffed wholly or in part by full-time faculty attempting to fulfill the major university goals of superior teaching and research scholarship. Their physical removal from the intellectual stimulus of the university makes this a more difficult task.

e. UNIVERSITY GOALS

The major commitment to patient care and clinical teaching of non-registered students (interns, residents, and fellows) by the M.D. faculty in the clinical departments significantly reduces the time available to them for laboratory or clinical research. Since the university has standards which primarily reward scholarship in research and teaching of registered students, the time devoted to patient care and clinical teaching of interns, residents, and fellows is seen as less productive from the point of view of obtaining the goal of a tenured faculty position in the university, however essential these activities may be to the medical school. This dichotomy in goals for the M.D. faculty, as physician, teacher, and deliverer of patient care in the school and academic competitor in the university, creates a situation fraught with tension and frustration.

f. PROPOSED SOLUTIONS

One possible solution to the conflicting time demands on the M.D. faculty in clinical departments is to hire qualified non-faculty physicians to provide the clinical service beyond that essential to the educational program. Such non-faculty (staff) M.D. appointments exist at the medical school and are called physician specialists. At the Stanford University Hospital these appointments have been mostly of short duration to provide physician coverage for faculty on sabbatical, leave of absence, or during brief periods of research activity. Utilization of these non-faculty physicians has not been extensive. Some teaching is usually required of these physicians in their interaction with medical students, interns, residents, and fellows even where heavy clinical service duties are involved. Many faculty believe that, to maintain the clinical and teaching excellence necessary for a full-time position at a major university medical center, one must actively engage in answering questions important to the discipline, i.e., research. In any event, the economics of the physicians' marketplace is such that excellent practicing physicians with the ability to teach younger physicians usually cannot be hired full-time without the inducement of high salaries or professional rank. Their

clinical practice excellence is recognized by the marketplace in medicine and rewarded at a higher financial level than the medical school can afford. They can find an outlet for any desire they may have to teach by spending one day a month at the medical school as unpaid members of the voluntary faculty.

Many medical schools utilize a voluntary clinical faculty composed of excellent physicians in the immediate locale who contribute teaching time to the medical school and Stanford is one of them (Table 23). Historically these voluntary faculty have had the title of clinical professor of (medical subject). The voluntary clinical faculty are important to the medical school as models of the private practitioner of medicine for the medical student, in some instances for the income derived from their patient care services at the school which are donated to the school, and for the small but important amount of time that they free for the full-time faculty to pursue their scholarly activity. Although of great importance to the school, the voluntary clinical faculty cannot be expected to provide the major share of clinical teaching.

In order to provide a broader, reliable base for excellence in patient care and clinical teaching among the full-time faculty, the adjunct faculty line has been created. This faculty position has the responsibility of providing excellent patient care and clinical teaching in the broadest sense, including publication of review articles and teaching-oriented reports in their area of expertise. This faculty line does not have tenure but rather long-term appointments. Conceived as a means of developing and hiring the excellent physician faculty necessary to teach and provide patient care, the adjunct faculty line now includes associate professor and professor ranks, and so is structured to allow the development of young faculty to meet the need for patient care and clinical teaching. The title for this faculty line (professor of clinical subject) is unfortunately easily confused with the voluntary faculty title. Whether the adjunct faculty line and the numerical restricions placed on it (only 20 percent of the total academic council members in the medical school can be adjunct) will meet the needs of the clinical academic program remains to be established.

E. IMPACT OF THE PATIENT CARE RESPONSIBILITY ON OTHER UNIVERSITY FACULTY

1. FACULTY SIZE

While the patient care and clinical teaching needs of the medical school have resulted in what for Stanford University is a large school faculty, the Stanford Medical School is not large by national medical school standards of total medical students, housestaff (interns, residents, and fellows), or faculty (Ref. 20). Nevertheless, the relatively large size of the medical school faculty has led to tension between medical school faculty and faculty in the rest of the university.

The faculty size at the medical school is an issue in university governance and membership and representation in the academic council and faculty senate. This issue has been resolved to date by admitting all those faculty who hold regular university appointments in specified academic ranks to the academic council but one-half of the total representation to the academic senate by school is on the basis of students registered in the school and the other half on the number of members of the academic council from each school (Ref. 21). This procedure results in an under-representation of the medical school faculty relative to its proportion of the total university faculty. Such under-representation of the medical school faculty on the senate eases fears of a medical faculty block vote on issues of importance to undergraduate education where the medical faculty may be less involved or have less knowledge or interest than faculty outside of the medical school. It does not ease the fears of the medical school that the senate representatives may inadvertently vote negatively on issues of importance to the medical school where faculty outside the school may be less involved or have less knowledge or interest. From the medical school point of view, this under-representation also fails to take into account the role played by the medical school faculty in undergraduate education, does not recognize the intern and resident as a graduate educational responsibility of the medical school and university, and creates an adversary role where one need not exist.

2. SALARY

All physician faculty at Stanford Medical School, other than volunteers, are salaried by the university. The average salaries of M.D. faculty in the clinical departments are higher than the average faculty salaries in other schools in the university (Table 33). The medical school attempts to maintain competitive salaries, department by department, relative to other medical schools with full-time salaried faculty. While medical school salaries are lower than those in private practice, they reflect competition from the private sector. The consultation policy within the medical school restricts all M.D. faculty members from keeping professional fees charged to individual patients except for emergency or one-time service or consultation. These monies, with the exceptions listed above, are turned over to the school. An M.D. faculty member at the Stanford Medical School may only accept income outside of salary from education of health professionals elsewhere; industrial consultation, not involving patient care; honoraria; royalties and prizes; and special salary supplements such as journal editorships which may be considered in establishing the base salary level. All of these activities must fit within general university guidelines. At many medical schools only a portion of the M.D. faculty funding is provided by a university salary and the rest is made up of private patient professional charges. This latter system, called "geographic full-time", increases M.D. faculty income but may decrease the motivation for faculty scholarship. When comparing faculty salaries, it should be noted that physician faculty salaries are based on an 11-month work year, because of patient-care responsibilities, and these salaries must be adjusted when compared to the standard nine-month university salary. It should also be noted that, at both the assistant and associate professor ranks, the average age of medical school faculty in clinical departments is three to four years greater than the average age of faculty of the same rank in other schools of the university (Table 34). The extended education of the academic physician beyond the four years of medical school through the years of internship, residency, and fellowship undoubtedly accounts for this older age of the faculty. The average salary for Stanford University in schools other than medicine is at the 80th to 95th percentile nationally

for university faculty (Ref. 22) while the average medical school faculty salary is at the 60th percentile nationally for medical schools with a full-time salaried faculty (Ref. 23). If the principle has been established by the university to recognize the reality of the academic marketplace and pay for academic excellence throughout the university, it has been slow to apply that principle to the salaries of the M.D. faculty in the clinical departments at the medical school probably because these salaries are on the average higher than those in other schools in the university and are increasing more rapidly. Although the salary differential which now exists may be an irritant to faculty in other schools, the competitive disadvantage nationally of relatively low faculty salaries in the clinical departments creates significant faculty recruiting, retention, and morale problems for the department chairmen. While it might seem to be desirable that all faculty at the university should be paid approximately the same at each rank, such a policy would not take into consideration the practical reality of the physician job market in academic medicine.

3. DEGREE BACKGROUND DIFFERENCE

It is difficult to evaluate what effect the different educational and situational backgrounds of the M.D. faculty at the medical school have on their relationship to the almost exclusively Ph.D faculty of the other schools at Stanford. The standards for tenured faculty promotion are basically similar. The accomplishments of the medical school M.D. faculty are judged for tenure by an ad hoc committee of three M.D. and two Ph.D. faculty from departments outside the one of the candidate being reviewed. Their report is reviewed by the medical school executive committee and the dean. Review by the provost, advisory committee, president, and board of trustees is the same as for faculty in the other schools. The percentage of tenured faculty at the medical school is the next to lowest of any school in the university with 58.1 percent tenured. Only the business school with 57.9 percent tenured faculty has a lower percentage (Table 34).

While the standards for faculty performace may be the same, the educational backgrounds are different. Although Stanford Medical School emphasizes research scholarship and many of its M.D. faculty, some with Ph.D. degrees, have highly developed laboratory skills, others have more highly developed traditional physician skills. Education of the physician historically has been a structured learning experience, not the more unstructured research-oriented environment which nurtures the Ph.D. candidate. The differing educational background may affect how one group of faculty views the other. The M.D. faculty may not appreciate the time constraints and pressures of laboratory research, undergraduate, graduate, and postdoctoral teaching, and student advising felt by the Ph.D. faculty. The physician faculty member finds his own day full with clinical teaching assignments, clinical or laboratory research projects, and, in addition, patient appointments, operations, procedures, and emergency patient-care calls at all hours of the day and night. From his perspective he may regard the Ph.D. faculty as lucky to have not only more time for scholarship but also a more leisurely life style. Because the Ph.D. faculty may not appreciate the problems created by patient care responsibility, clinical research, and clinical teaching, he may see the M.D. faculty as being less academically oriented and protesting too much about the busy nature of his daily schedule and envy his higher salary. The difference in educational background and daily academic life style is real but the common goal of academic excellence in one's discipline is shared.

The presence of a major health care facility with a large number of physician faculty on a residential campus poses other than academically important problems.

4. MEDICAL CARE FOR THE UNIVERSITY COMMUNITY

In the past the issue of the medical center and its faculty providing continuing medical care for the university community has been raised. Unless the university changes its goals and its standards for promotion of faculty to tenure, an increase in the patient care volume without an increase in scholarly opportunity for the faculty would not be in the

best academic interest of the medical school or its faculty. Only if this type of patient care can be developed with a firm base of teaching and research would it contribute positively to the academic program of the medical school.

5. FACULTY HOUSING

The size of the medical school faculty and the higher salaries paid to M.D. faculty could result in a disproportionate utilization of campus housing by M.D. faculty. Data with respect to the number of medical school faculty currently in campus housing relative to faculty in other schools does not suggest that this has occurred. Proportional to their number in the academic council 29 percent of campus housing could be expected to be occupied by medical school faculty. A 1975 study indicated that 24 percent of campus housing was occupied by medical school faculty. It is not clear that even should a disproportionate utilization occur it would necessarily be detrimental to the neighborhood.

6. DAILY INTERACTION

The size of the medical school, the need for contiguity of facilities and room for expansion, and the concentration of personnel make it difficult to locate the medical center other than on the periphery of the campus. The relatively greater distance to the faculty club and center of campus from the medical school combined with the time demands of patient care responsibility increase the difficulty for socialization with faculty from other schools during the work day and decrease the visible presence of the medical school faculty at the center of campus life.

F. MEDICAL SCHOOL ADMINISTRATION AND THE IMPACT OF PATIENT CARE

1. ADMINISTRATIVE ORGANIZATION OF THE MEDICAL CENTER

Like other medical schools throughout the nation, the Stanford Medical School has evolved into an academic medical center; a complex mixture of medical school, university hospital, and outpatient clinic. The

administrative organization of the medical center has been presented in the section describing the magnitude and diversity of the patient care responsibilities (Table 26). In the organizational diagram there appears to be a distinct separation between the patient-care-business aspects of the hospital and clinic and the academic aspects of the school. In practice this distinction is not clear largely because the faculty physicians play major roles in the medical center both as teachers and researchers in the school and as deliverers of patient care in the hospital and outpatient clinics. The collegial model of faculty governance of other schools in the university is intermingled with the more well-defined organization required to administer the patient care business of the hospital and clinics.

2. FACULTY ROLE

The authority of the faculty, as in other schools, is very broad in matters of educational policy, particularly courses and curricula, student admission policies and procedures, faculty recruitment and promotion, and research. The individual faculty member in the medical school just as in the rest of the university seeks to influence institutional decisions which affect his discipline, specialty, laboratory or research, and, where applicable, his patients. He can do this individually, through his elected representative bodies, the medical school faculty senate and the university academic senate, or through his department chairman. Many of these individual or group faculty decisions have major budgetary, personnel, and patient care implications.

3. THE DEPARTMENT AND THE ROLE OF THE DEPARTMENT CHAIRMAN

If the faculty is the principal constituency in terms of governance of the medical center, the department is the key organizational unit. As in the rest of the university, it is within the department that faculty recruitment takes place, decisions on courses and curricula are largely made, and policies can be initiated, modified, and carried out. The chairman of a basic science department has the same academic and adminstrative role as his colleague outside the medical school. The

chairman of a clinical science department, however, is responsible not only for the departmental academic affairs of teaching and research but also for the management and quality of the medical care provided by the department in the outpatient clinics, university hospital, and affiliated institutions. This includes direct responsibility as service chief at Stanford University Hospital for patient care in that discipline (e.g., surgery) provided by local physicians, voluntary faculty, full-time faculty, interns, residents, and fellows. (In 1974-75, in surgery, this included 14,638 major and minor surgical operations resulting in 66,956* inpatient days of care and 49,370 outpatient visits to the clinic.)

Medical school department chairmen, both in basic and clincal science departments, are selected in the usual university tradition of a nationwide review of faculty who are in the academic forefront of their discipline in research and teaching. The hope is that they will have sufficient administrative skills to provide academic leadership. However, in the case of the chairmen of the clinical departments, they must also be able to manage a multimillion-dollar patient-care business.

The chairmen of both the basic medical science and clinical science departments can influence the academic and patient-care administrative decisions of the dean individually and through the committee of department chairmen called the executive committee. In the executive committee, patient care decisions can be influenced by basic science as well as clinical department chairmen. The department chairmen of the clinical departments can also directly influence the patient care administration through their physician faculty and indirectly through the hospital medical board which includes the chairmen of all the clinical departments, three elected local physicians, the hospital director, and the dean.

The setting in which the departmental medical care is provided, however, is not as directly under the department chairman's administrative control as is the academic environment and the physician faculty. For example, the nurses (who provide patient care in the hospital under the direction

* 62,993 inpatient days on the surgical service and 3,963 on the pediatric service for which the surgery service chief has consultative responsibility.

of the faculty physicians) are hired by and responsible to the nursing service, not the clinical department chairman. The director of nursing service is responsible to the director of the hospital who is responsible to the vice president for medical affairs and the medical and hospital boards.

Development and maintenance of a high quality academic department, whose reputation is primarily based on the research productivity of the faculty, in the face of major patient care responsibility is a significant problem for the clinical department chairmen. The limiting effect of patient care responsibility on the time available for the scholarly pursuits of the physician faculty, the competitive salary level advantage of the medical schools with which Stanford competes, and the constant availability of private practice combine to create a major recruiting problem for the clinical department chairmen. This recruiting problem is reflected in the yearly "Changes in Medical School Faculty Status Report" (Table 35). During 1974-75, 93 new faculty appointments were made at the medical school which had a total faculty of 418 as of September 1, 1975. All 35 of the new appointments to the academic council were in clinical departments. Forty-three of the 58 other faculty appointments were in clinical departments. Most of these appointments were for acting or visiting faculty to fill positions while searches were ongoing or to replace faculty on sabbatical. Between 1968 and 1975, the total tenure-line faculty has decreased by 31 and the total faculty increased by 53. Non-tenure-line faculty (including acting and visiting appointments) now make up 36 percent of the medical school faculty and most of these are in the clinical departments. During 1974-75 the department of medicine appointed 16 new faculty; surgery, 14; radiology, 10; pathology, and psychiatry and behavioral sciences, 9 each; anesthesia, 8; dermatology, 6; pediatrics, 3; family, community, and preventive medicine, 2; and neurology, 1. An equal number of new faculty may be necessary each year as replacements to maintain or expand the provision of patient care. Searches for tenure-line and non-tenure-line faculty are nearly continuous in these clinical departments.

The pace of departmental decision-making with respect to the daily provision of patient care is not leisurely. When an expensive and

sophisticated piece of diagnostic x-ray equipment breaks down, patients' lives may depend on how rapidly the chairman can have it repaired, replaced, or alternate diagnostic service provided. When a physician faculty member in a clinical department is sick, unexpectedly absent, or suddenly quits, the chairman must still arrange to provide the patient care for those patients who were to have been seen or operated on by that faculty member. Not only does the maintenance of the patient care service require constant administrative attention but the department chairman must also be the arbiter of professional (M.D.) medical disputes and sympathetic listener to unresolved patient complaints.

Currently the administration of the patient care aspects of the clinical departments occupies much of a chairman's time and his own research and teaching, the excellence of which prompted his hiring, is compromised. The time-consuming job of administering the delivery of patient care also restricts the amount of time he can devote to developing the teaching and research aspects of the department. It is not surprising that, as of September 1, 1975, of the 12 clinical departments only three have department chairmen who have served more than three years. Among the five major departments providing direct patient care (gynecology and obstetrics, medicine, pediatrics, psychiatry and behavioral sciences, and surgery), two are searching for chairmen and none of the other chairmen has served more than three years The increasing complexity and unattractiveness of the clinical department chairman's job is recognized throughout the country (Refs. 24 and 25).

4. THE DEAN AND THE UNIVERSITY VICE PRESIDENT FOR MEDICAL AFFAIRS

Since the dean of the school of medicine and the vice president for medical affairs of the university are the same individual, the patient care related problems of the medical school most immediately impact the central university administration in his office. He is responsible for the administration of all the university's programs in medical education, research, and patient care (with the exception of the student health service and medical care for the university staff, faculty, and their families) and has the responsibility for long-range planning of the academic program, physical facilities, and the financial operation of the Stanford University Medical Center. He represents the university in its relationship

with the Stanford University Hospital and as its interface with the public in matters pertaining to medicine.

In his role as dean of the school, he looks to the academic council and its senate for answers to questions involving faculty issues such as academic freedom, tenure, and new faculty titles. As dean, he submits to the administrative supervision of the provost and the usual review of faculty appointments and promotions as do all deans of schools. Unlike other deans, as the vice president for medical affairs of the university, he also reports directly to the president. It is the patient care responsibilities and the magnitude of them which make his relationship to the central administration of the university unique and their administrative impact which has made the median tenure of medical school deans nationally three years (Ref. 26).

These patient care responsibilities include representing the university in its relationship with the Stanford University Hospital board of directors, the governing body of the hospital, and administrative staff. This governing body of nine persons is appointed by the board of trustees of the university in their role as general members of the Stanford University Hospital. The hospital board of directors is charged with formulating policy, planning, maintaining, and operating the hospital, and providing for the organization of the medical board which is responsible for determining all professional medical policies. The medical board is comprised of the dean and vice president for medical affairs, the director of the hospital, the department chairmen, and three deputy chiefs of the clinical services elected from the local community physicians (Ref. 27).

The dean must transmit to the university administration the actions of the hospital and medical board and describe their effect on the medical school and university. As the only university officer with an M.D. degree and practical experience in the medical-care business, he must continually educate his administrative colleagues about this area which is foreign to their past academic and educational experience and increasingly more complex.

The patient care responsibility, as we have seen, is not separable from the academic program in spite of administrative recognition of it as an additional responsibility. Its effect on faculty turnover and replacement, time available for faculty scholarship, and faculty size has been mentioned.

a. ACADEMIC PROGRAM AND PHYSICAL FACILITIES

The necessity for patient care in sufficient amount to teach medical students, interns, residents, and fellows and maintain medical faculty expertise determines to a large extent the size of the physical facility of the academic medical center. When compared with nine competitive medical schools (Table 20), Stanford has the next to smallest number of junior students (those students beginning their patient care teaching years). Even with this small class size, Stanford has only 29 percent of the teaching hospital beds available per junior student at Harvard, 42 percent of the teaching beds available per junior student at Johns Hopkins, and 55 percent of the teaching beds per junior student at Duke. Table 36 shows the teaching hospital beds needed at Stanford based on a national model. This model indicates a current need for 227 more beds to provide adequate teaching opportunity for the present student population. Current construction will provide only 25 additional beds. Part of the bed deficit problem faced by the dean occurs because 370 of the 618 beds available in the Stanford University Hospital are contracted to the use of Palo Alto physicians until 2008. This is equivalent to having 60 percent of the seats in Stanford University classrooms contracted to Foothill College for the use of their students for the next 33 years. This peculiar contractual arrangement with the City of Palo Alto resulted from the high cost of building patient care facilities and local patient care pressures. One approach to solving the teaching-bed-deficit problem has been the use of ancillary facilities. The Children's Hospital at Stanford, the Palo Alto Veterans Administration Hospital, and the Santa Clara Valley Medical Center are integral parts of the academic program providing additional teaching beds. Their use means the students and faculty must travel between institutions, the faculty at these institutions are removed from the stimulus of the medical center, and the dean has a significant portion of his academic program in institutions which he and the university do not direct.

The impact of the patient care responsibility is clear with respect to the hospital and clinic facility requirements for clinical teaching and research, but its impact on the facility needs in basic science and laboratory

research is less evident. Some clinical research occurs during diagnosis and treatment of a patient's illness. Other patient-oriented research requires laboratory space either for analysis of human tissues or experiments utilizing animal models of human disease. The immediacy of patient care needs can create pressures which are inexorable. For example, as the demand for certain laboratory and diagnostic services for direct patient care has increased, some of the laboratories providing these services have expanded into research laboratory space and decreased the amount of this space available. For a school second among the nation's medical schools for sponsored research dollars per faculty member (Ref. 20), the adequacy of research space is a serious problem. It is not clear how the use of funds to meet the patient care needs of the clinical departments has affected the medical school's 16 year inability to renovate the portion of the old museum building (which houses the basic science departments of anatomy and medical microbiology) and the area of the main quadrangle which houses the department of physiology; nor is it clear how the use of funds for patient care needs has been related to the medical school's inability to construct a new facility for these departments. The lack of adequate facilities has undoubtedly played a major role in the school's failure to attract a permanent department chairman for anatomy and physiology. Current construction will provide new facilities which will partially accomodate anatomy and physiology but not medical microbiology.

b. THE PUBLIC, MEDICINE, AND THE MEDICAL SCHOOL

Health expenditures in the United States in 1975 were 8.3 percent of the gross national product, a total of $119 billion, up 14 percent over 1974. The health industry is now the second largest industry in the nation. Per capita spending equalled $547 in 1975. Since 1965 public expenditures for health care have grown from $10 to $50 billion and from 25 percent to 42 percent of the total health care expenditures (Ref. 28). With such large sums of money being spent for health and the visibility that health care has in the national, regional, and local scenes, it is to be expected that pressures will be exerted at all these levels to influence the operation of the medical center. These administrative pressures are different in

degree and kind and are in addition to those being exerted on higher education and other schools in the university.

Today over 100 different federal, state, and local agencies have an impact on academic medical centers. Consider federal reimbursement under Medicare, federal and state policies under Medicaid, formula and project grants for health professions education, regional medical programs, health services research, family planning, maternal and child health service projects, policies in human experimentation, professional standards review organizations, policies in construction of medical facilities, regulation of medical insurance carriers, policies of the Federal Drug Administration, state regulation of medical x-ray producing equipment, medical malpractice insurance policies, federal regulations protecting animals used in medical research, and national and state regulations requiring recertification of practicing physicians. The effect of the contractural arrangement with the City for beds at the Stanford University Hospital has already been mentioned.

Additional federal regulatory policies are proposed including a mandated admission requirement, a mandated organizational structure, probable legislation of national health insurance, possible legislation affecting the distribution of physicians graduating from medical school, and possible legislation mandating the education of a fixed percentage of primary care physicians from each incoming medical student class.

The size of the patient care operation at the medical school can magnify the administrative effect of governmental policies which affect all of the schools in the university. Examples are the bringing of universities and hospitals under the jurisdiction of the National Labor Relations Act and affirmative action searches for staff. Since the medical school has 45 percent of the staff of the university, it is affected by these policies to a greater extent than any other school in the university. The effect of affirmative action search and hiring policies for faculty is increased by the high rate of new faculty appointments at the medical school as well as the large size of the faculty.

The magnitude and complexity of the patient care operation, the intense

regulatory environment of the hospital, and medical malpractice litigation make it necessary for the dean to have a staff of university attorneys whose time is devoted exclusively to the school, a situation which is not common to other schools in the university.

The melding of patient care with academic responsibilities in one physical setting at the medical center even creates unique problems with such things as staff pay. Because of historical hospital and university precedent, secretaries hired by one department, doing similar work, at similar levels, may be paid different salaries and have different benefits depending on the budget (hospital or university) from which they are paid.

Public pressures for improved medical care and the expectation that academic medical centers serve as foci not only for the provision of that care but also for the education of all personnel concerned with that care have led to educational programs based in the university hospital that are unrecognized by the university either as academically important or as university service. Typical of these is the physician's assistant program that has been developed by Stanford Medical School, jointly operated with Foothill College, and funded by $972,000 provided by the Department of Health, Education, and Welfare through the Bureau of Health Manpower Resources and the California Committee on Regional Medical Programs. The program hopes to retard the trend of physicians leaving rural areas for urban-surburban areas by providing them with assistants. There are approximately 20 students in the class and the program is designed to be expanded to other community colleges and cooperating area hospitals. The physician's assistants aid M.D.'s by taking patient histories, giving physical examinations, doing simple laboratory analyses, providing minor therapeutic and diagnostic services, and offering patient counseling and education under the doctor's supervision. Educational activities such as this one which are deemed worthy by the public and are supported by federal or state funds require supervision by an interested faculty member, teaching space, and interaction of these students with patients. The physician's assistant program is only one of several hospital-based non-university teaching activities at the medical center which include the inhalation therapy program, nursing assistant training program,

radiotherapy technology program, diagnostic x-ray technology program, surgical technical aide program, unit clerk training program, and the postgraduate course for nurses in operating room technique.

The recertification legislation either pending or in effect on a national or local level has increased the pressures from within medicine for the academic medical centers to provide the necessary continuing education. The medical school meets these needs by either developing continuing education courses for physicians at the medical center (Table 21) or by faculty participation in such courses held throughout the country. While this type of teaching fulfills a public and professional need, it does not further the university goals of excellence in research or teaching in the limited sense of students registered at the university.

The public desire for the latest in medical scientific advances to be made rapidly available for patient care places a continuous demand on the medical school and medical center to expand its expertise and services. An example of the type of technological advance which creates an entirely new field is the application of ultrasound to the diagnosis of human disease. This field began developing after World War II as a result of technology developed during the war. Although the technique has limitations (ultrasound passes poorly through air-containing organs), it has the advantage of not being injurious to human tissues at the energy levels employed for diagnosis. The diagnostic division of the radiology department and the cardiology division of the department of medicine, in conjunction with the electrical engineering department of the engineering school, are developing sophisticated diagnostic ultrasound equipment. Many commercial units are already available. Various clinical departments expressed a strong need for this service which is available in many hospitals and is now available at the medical center. Not only is the proper equipment necessary to meet this need, but providing this new discipline requires faculty, rooms for the equipment, technicians to run the equipment, and secretaries for the faculty and for patient scheduling. As diagnostic ultrasound establishes itself, physicians in the private practice of medicine require that this discipline be incorporated into resident training programs and into medical education in general. Similar

advances have occurred in the last few years in computerized axial tomography, fiber-optic endoscopic examinations, open heart cardiac surgery and coronary surgery bypass procedures, transplantation surgery, medical immunology, and cancer chemotherapy to mention a few. The expansion of these and other medical advances into routine patient care and general medical education begins at medical centers such as Stanford and contributes to the increasing size and cost of these institutions.

c. FINANCIAL OPERATION

The large size of the medical center budget (medical school, hospital, and outpatient clinic) is of concern not only to the dean and the department executives at the medical school but also to the university president, his financial officers, and the board of trustees. As noted earlier, the $100.6 million medical center budget is 38 percent of the total university budget of $264.8* million. The hospital and outpatient clinic budgets total $58.5** million (Table 25). The medical school academic budget is $42.1 million. $31.4 million is outside the operating budget and $10.7 million is in the operating budget. This latter portion of the budget is of greatest concern to the faculty in other schools in the university since it alone deals with university general funds, but the medical school administration, the president, and board of trustees are also responsible for the other 89 percent of the budget of the medical center.

The medical school operating budget income is made up of general funds, special funds, gifts and grants, and endowment income. These are the income sources for the university and all its schools. When the medical school moved to the Stanford campus in 1959, a budget formula was adopted, called initially a general fund ceiling, and implemented to reduce the likelihood of the medical school becoming a financial drain on university general funds. Currently the general funds received by the school consist of:

* Includes 14 months of Hospital expense.

** Hospital includes only 12 months of expense to be comparable to school and clinic.

1. 100 percent of tuition (less $98,200 of community fees) paid by students in degree programs administered by the school ($1,854,345),
2. 100 percent of medical student application fees received by the school ($93,947),
3. Total indirect cost recovery on grants and contracts received by the medical school less 15 percent of the net total direct expenditures which is retained by the university (irrespective of allowances made by the granting contracting agency) ($4,347,000). The school of medicine is responsible for the operations and maintenance expenses of its physical facilities and receives fire and police services and some utilities from the City of Palo Alto rather than Stanford. This division of overhead income is felt to reflect the approximate division of overhead expenses incurred by the university and the school.
4. A basic allocation, which is a negative figure for the school, offsets the university administrative expenses not covered by indirect cost recovery on sponsored research and adjusts the flow of dollars for numerous services the school provides itself in whole or in part (-$171,837).

Special funds include the school's share of professional care income generated by the faculty, less expenses. Gifts and grants include unrestricted gifts and grants received by the school. Endowment income is the income from endowments designated and restricted to the medical school.

The school is responsible for salaries and benefits, equipment, travel, expendable materials and supplies, library acquisitions, and other operating expenses (Ref. 29). The present budget formula is in effect through 1975-76. The whole question of budget allocation by formula was reviewed by the Task Force VI Committee appointed by the president. As pointed out by Vice Provost Bacchetti, while the medical school budgeting is by formula in contrast to all other schools in the university, with the exception of business, the medical school follows standard university policies and practices in regard to faculty appointment, reappointment, and promotion recommendations; faculty position justification procedures; faculty salary review; staff personnel employment, classification, and

compensation standards; affirmative action goals and obligations; accounting, investment, purchasing, and other internal administrative procedures; fund-raising coordination; and other administrative, legal, safety, and general standards of operation.

Dean Clayton Rich has stated that the budget formula has:

> ...allowed the Medical School to take advantage of the very favorable economic circumstances of academic medicine in the past 25 years, while, at the same time, being sure that the School does not drain resources from other schools and programs of the University that are less able to gain public and private support (Ref. 29).

The budget formula has in fact decreased the percent of university unrestricted funds going to the medical school since it was initiated. The budget formula, moreover, has not stopped the medical school from participating in the recently completed Budget Adjustment Program (BAP). Of the $5,000,000 deficit eliminated from the operating budget over a five-year period, the medical school contributed $1,051,500 (Ref. 29) and thus receives annually $1,051,500 less than in the pre-BAP years.

The same changes in economic factors which created the need for reconsideration of budget projections across the university prompted the school of medicine to revise its long range budget forecast (Ref. 30). This revised forecast indicates there will be operating budget deficits beginning in the third year (1977-78) of the five-year forecast if the budget is not altered. While the forecasts project increases in expense in excess of increases in income for the medical school and university, and the student population seeking entry to universities is declining, the demand for entry to medical school has not slackened and the public demands for access to medical care is unabated.

Operation under an allocation by formula (general fund ceiling) budget gives the medical school a strong incentive to develop a vigorous fund-raising program and to operate its affairs with maximum efficiency. It also enables the school to make long range plans to an extent not otherwise possible. There are risks involved with such a formula; if the

school is unable to raise the funds necessary to meet the commitments associated with the plan of action it is following, no further general funds from the university are forthcoming and the result could be a major setback to the school's leadership and the school's financial future. It should be noted in this context that the fund-raising efforts of the medical school are coordinated with such efforts by other schools through the university development office. This coordination enables the president of the university to establish relative priorities for all the fund-raising efforts of the various schools, prevents multiple solicitations of a donor by different schools in the university, and restricts the individuals and foundations which can be solicited by any one school. The medical school, because of its highly visible patient care function and disease oriented research, is a major focus for gifts. Insofar as the medical school is unable to pursue all of the avenues for gift monies which are potentially available to help meet its perceived academic and patient care needs, another major source of its operating budget besides general fund income is limited. (Other universities such as Harvard do not coordinate solicitation among schools. Harvard believes that multiple solicitations by different schools is desirable and leads to more total gifts to the university (Ref. 31).)

Medical school tuition income is also limited not only by the same factors which limit further increases in tuition level throughout the university but also because the number of medical students which can be taught with the currently available teaching beds cannot be increased even though over 4,500 applications are received each year for the 86 positions available. The special funds generated by the faculty through their patient care services can be increased either by having the faculty see more patients or by raising the level of professional fees. The former can be accomplished only at the expense of scholarly activities and would require additional expansion of facilities. The latter is partially controlled by federal, state, and medical insurance provider regulations as well as the competitive medical care market.

The medical school budget outside the operating budget is primarily made up of sponsored research ($21.0 million of $31.4 million). Fifty percent of the total medical school budget of $42.1 million is made up of

sponsored research. Of this $21.0 million, 89 percent is government sponsored. The total sponsored research at the medical school is two-and-one-half times the dollar amount in the school of humanities and sciences and vividly demonstrates the ability of the medical school faculty to compete for these funds and the public and government interest in medicine and medical research. The dependence of the medical school on federal funds for half of its budget creates what is called a leveraged situation. The acquisition of these funds enables the medical school to expand its academic program with a minimum investment of other money. These government grants or contracts may, however, be as abruptly withdrawn as they were given, leaving the medical school with commitments to faculty and staff which must be met from other sources of income. Not only is the direct income lost when a grant or contract is not renewed, but the indirect income is also lost to the school and the university. The taking of the risk involved was intentional to allow the school to grow. The university is relatively protected, should a loss of income of this nature occur to the school, by the general fund ceiling or budget formula and it would be up to the school initially to solve its financial problem. The relative budgetary independence inherent in the budget formula carries with it increased administrative responsibilities and increased financial risk for the medical school. In the final analysis this risk is shared by the university and its board of trustees.

G. CONCLUSIONS

Where the goals and operation of the medical school are understood and seen as common to the goals and operation of the rest of the university, the interaction between the two has been academically productive and beneficial to both and can continue to be increasingly so. These common, well understood areas are teaching of registered undergraduate and graduate students, laboratory and clinical or applied research, and service to the university by participation in its advisory committees or organizations. Where the goals and operation of the medical school are not understood or seen as common with general university goals and operations, the interaction

between the school and the university may be tense with mutual suspicion and misunderstanding of motives. This tension has been present in the past and is present now. It is largely created by the impact of patient care responsibility, which is foreign to the university outside of the medical school, on all aspects of the academic program of the school and its budget. If the medical school continues to be subjected to increasing public pressure to expand its patient care role, educate more physicians and ancillary patient care personnel, and introduce new diagnostic and therapeutic techniques to medical practice, and the university fails to appreciate the impact of the patient care responsibilities on the school, the perceived divergence of goals may increase.

As Stevenson (Ref. 1) noted in his article on the historic relationship of the university and the medical school, "if, as in early nineteenth century Oxford the pace and purpose of university education are widely different from those the times require of medicine, the association will be less than happy and less than fruitful". While it is not yet clear that such a condition exists at Stanford, the current "dynamic steady state" projection for the university and the continued public demand for access to more and better medical care and more personnel to deliver that care raise the specter of such a dichotomy.

The medical school indeed has become "physically and philosophically an integral part of the University" as Dr. Sterling hoped. That integration, however, is not yet complete. Complete and responsible integration of the academic medical center into the university cannot occur unless each individual involved in decision making for the university in academic and administrative affairs has a clear understanding of the importance and impact of patient care on the academic program of the medical school. The university and the medical school have a conjoint responsibility in addressing the problems created by patient care and completing the integration. To optimally manage these problems, the medical school must clearly explain this issue to the university outside of the school. The rest of the university in turn must accept the problem as basic to the relationship and not avoid learning about it because it is complex and foreign to its prior experience. Insofar as this report is successful in providing some understanding to the

university community of the academic medical center, its relationship to Stanford University, and the impact of patient care on that relationship, the time devoted to its preparation will have been well spent.

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APPENDIX C: TABLES

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TABLE 1: TOTAL REGISTERED STUDENTS, BY SCHOOL AND, WITHIN THE SCHOOL OF MEDICINE, BY PROGRAM, 1974-75

	Under-graduate	Graduate	Total	Terminal Graduate
Major undeclared	2,617	12	2,629	
Unaffiliated programs		50	50	26
School of Business		660	660	21
School of Earth Sciences	56	130	186	46
School of Education		485	485	76
Education-Business		1	1	2
School of Engineering	651	1,295	1,946	193
School of Humanities and Sciences	3,176	1,303	4,479	440
School of Law	1	424	425	4
Law-Business		31	31	
School of Medicine:				
Biochemistry		17	17	6
Genetics		8	8	1
Health Services Administration		7	7	
Hearing and Speech Sciences		5	5	2
Medical Microbiology	27	15	42	4
Neuro- and Biobehavioral Sciences		24	24	3
Pharmacology		8	8	2
Physical Therapy		43	43	
Physiology		3	3	
M.D. Program		374	374	
	27	504	531	18
Total	6,528	4,895	11,423	826

Source: Autumn Quarter registration figures (as of 10/15/74) published in Stanford Student Directory 74-75.

Notes: Figures above exclude: 220 non-matriculated students and 57 with attendance permits.

TABLE 2: STUDENTS, UNDERGRADUATE AND GRADUATE, IN UNIVERSITY AND IN MEDICAL SCHOOL BY DEPARTMENT/PROGRAM, 1959-60 - PRESENT

Academic Year	Anatomy		Biochemistry		Genetics		Hearing & Speech Sciences		Medical Microbiology		Neurological Sciences		Nursing		Pharmacology		Physical Therapy		Physiology		Other		M.D. Program	MEDICAL SCHOOL TOTAL			UNIVERSITY TOTAL		
	UG	G	UG	G	UG	G	UG	G	UG	G	UG	G	UG	G	UG	G	UG	G	UG	G	UG	G	UG	G	TOT	UG	G	TOTAL
1959-60	3		7		4		15	28	5	13			82		1		9	21	5	7	1	4	204	121	288	409	5,415	3,345	8,760
1960-61	2		9		3		20	30	5	13			75		1		6	22	2	7		4	36	193	144	284	428	5,613	3,636	9,249
1961-62	2		9		1		22	35	4	11			67		2		8	22	11	9			53	194	165	285	450	5,666	3,844	9,510
1962-63	1		1	10	3		14	59	3	14			60		4		7	22	9	11	2	2	31	195	127	321	448	5,599	4,262	9,861
1963-64			11		5		7	56	3	14			55		6		7	27	9	13		1	30	250	111	383	494	5,648	4,780	10,428
1964-65	4		12		6		8	58	2	14		3	59		5		7	23	10	14			24	242	110	381	491	5,729	4,956	10,685
1965-66	7		11		7		5	62	1	16		6	67		11		5	33	5	11			13	272	96	436	532	5,853	5,230	11,083
1966-67	7		13		9		5	46	5	17		7	76		8		7	27	1	8			21	284	115	426	541	5,925	5,386	11,311
1967-68	5		17		10		3	26	1	16		10	66		9		12	28		5			22	308	104	434	538	5,923	5,517	11,440
1968-69	5		14		11			8	4	19		14	60		9		7	7		9			14	318	85	414	499	6,078	5,244	11,322
1969-70	2		12		10			5	2	22		9	67		11			17		9			8	329	77	426	503	6,221	5,217	11,438
1970-71	2		16		9			5	1	20		11	62		11			27		7			6	325	69	433	502	6,303	5,159	11,462
1971-72	2		11	(+8)	6	(+6)		5 (+1)	2	14 (+8)		7 (+3)	76		10			30		5 (+3)			4	331	82	421	503 (+29)	6,431	5,072	11,503 (+853)
1972-73			15	(+3)	4	(+4)		4 (+1)	6	13 (+9)		15 (+1)	41		10	(+1)		31		5 (+3)			3	334	50	431	481 (+22)	6,412	4,962	11,374 (+807)
1973-74			12	(+9)	7	(+2)		5 (+3)	19	12 (+5)		17	16		9	(+2)		40		4 (+2)			3	347	38	453	491 (+23)	6,437	4,823	11,260 (+866)
1974-75			17	(+6)	8	(+1)		5 (+2)	27	15 (+4)		24 (+3)			8	(+2)		43		3		7		374	27	504	531 (+18)	6,528	4,895	11,423 (+826)

Source: Autumn Quarter registration figures published in University Directory (1959-60 - 1961-62); Student Directory (1962-63 - present).

Notes: Hearing & Speech Sciences includes Speech Pathology (1959-60 - 1960-61), Speech Pathology & Audiology (1961-62 - 1967-68), Speech & Hearing Sciences (1968-69 - 1969-70), and Hearing & Speech Sciences (1970-71 - present).
Other includes UG in Basic Medical Sciences, G in Biophysics (1959-60 - 1960-61), G in Advanced Degree Programs (1962-63 - 1963-64), and G in Health Services Administration (1974-75 - present).
M.D. Program assumed equivalent to "School of Medicine" in University Directory in 1959-60 and to "Miscellaneous Medicine" in University Directory in 1960-61.
UG = undergraduate; G = graduate.
Non-matriculated, terminal graduate, attendance permit, and special registrations are excluded from all figures shown (exception: terminal graduate registrations are shown in parentheses beginning in 1971-72).

TABLE 3: GRADUATES, UNIVERSITY TOTAL AND IN MEDICAL SCHOOL BY DEPARTMENT/PROGRAM AND DEGREE, 1959-60 - PRESENT

Academic Year	Anatomy	Biochemistry	Genetics	Hearing & Speech Sciences	Medical Microbiology	Neurological Sciences	Nursing	Pharmacology	Physical Therapy	Physiology	Other	M.D. Program	MEDICAL SCHOOL TOTAL	UNIVERSITY TOTAL
1959-60				8 AB 11 AM 6 PhD	5 AB 1 AM 1 PhD		29 BS		6 AB 5 AM	4 BS		56 MD	52 AB/BS 17 AM/MS 63 MD/PhD	2,437 (all degrees)
1960-61		1 PhD		8 AB 8 AM 3 PhD	1 AB 3 AM		33 BS		2 AB 8 AM	2 BS 1 MS 2 PhD	4 AB	53 MD	50 AB/BS 20 AM/MS 59 MD/PhD	2,658
1961-62			1 PhD	9 AB 18 AM 3 PhD	2 AB 2 AM 2 PhD		19 BS		2 AB 2 AM	6 BS 4 MS	8 AB 1 AM	57 MD	46 AB/BS 27 AM/MS 63 MD/PhD	2,866
1962-63		1 PhD	1 PhD	9 AB 22 AM 6 PhD	4 AB 2 PhD		20 BS		5 AB 2 AM	8 BS 1 MS	7 AB	4 MD	53 AB/BS 25 AM/MS 14 MD/PhD	2,955
1963-64	1 PhD	3 PhD		4 AB 23 AM	2 AM 4 PhD		20 BS		2 AB 5 AM	5 BS 1 MS 2 PhD	10 AB	62 MD	41 AB/BS 31 AM/MS 72 MD/PhD	3,212
1964-65	1 PhD	1 PhD		4 AB 20 AM 5 PhD	1 AB 2 AM 2 PhD		19 BS		3 AB 6 AM	10 BS 2 MS 2 PhD	10 AB	46 MD	47 AB/BS 30 AM/MS 57 MD/PhD	3,552
1965-66	1 AM	2 PhD		1 AB 23 AM 2 PhD	1 AM 1 PhD	1 PhD	9 BS	1 PhD	2 AB 9 AM	2 BS 1 MS 2 PhD	4 AB 1 AM	54 MD	18 AB/BS 36 AM/MS 63 MD/PhD	3,519
1966-67	1 PhD	5 PhD	1 PhD	2 AB 27 AM 5 PhD	2 AB 3 AM 4 PhD		24 BS	1 AM 1 PhD	2 AB 5 AM	2 MS 2 PhD	8 AB	48 MD	38 AB/BS 38 AM/MS 67 MD/PhD	3,684
1967-68	1 PhD	1 PhD	1 PhD	4 AB 22 AM 2 PhD	4 AB 2 AM 3 PhD	2 PhD	21 BS	1 PhD	5 AB 2 AM	1 BS 3 PhD	2 AB	61 MD	37 AB/BS 26 AM/MS 75 MD/PhD	3,913
1968-69	1 PhD	1 MS 1 PhD	1 PhD	1 AM 3 PhD	2 AB 2 AM 4 PhD	1 PhD	18 BS	8 PhD	7 AB 5 AM	2 PhD	4 AB	61 MD	31 AB/BS 9 AM/MS 82 MD/PhD	3,694
1969-70	1 PhD	3 PhD	1 PhD	7 PhD	2 AB 1 AM 3 PhD	2 PhD	23 BS	2 PhD	4 AM	2 PhD	3 AB	69 MD	28 AB/BS 5 AM/MS 90 MD/PhD	3,693
1970-71	5 PhD	6 PhD	1 MS 1 PhD	4 PhD	1 AB 2 AM 6 PhD	3 PhD	14 BS	1 AM 2 PhD	9 AM			69 MD	15 AB/BS 13 AM/MS 96 MD/PhD	3,950
1971-72		6 PhD	2 PhD	3 PhD	2 MS 2 PhD	1 MS 6 PhD	26 BS	2 AM 2 PhD	11 AM	2 PhD	2 AB	75 MD	28 AB/BS 16 AM/MS 98 MD/PhD	4,105
1972-73		3 PhD		1 PhD	1 AB 1 MS 2 PhD	3 PhD	18 BS	1 PhD	9 AM	1 MS 1 PhD	2 AB	89 MD	21 AB/BS 11 AM/MS 100 MD/PhD	4,151
1973-74		3 PhD	4 PhD	2 PhD	5 BS 2 MS 2 PhD	1 MS 2 PhD	18 BS	1 PhD	14 AM	1 MS 1 PhD	3 AB 8 MS	76 MD	26 AB/BS 26 AM/MS 91 MD/PhD	4,080
1974-75		5 PhD	1 PhD	1 PhD	8 BS	4 PhD		6 AM	17 AM	3 PhD	3 AB 17 MS	81 MD	11 AB/BS 40 AM/MS 95 MD/PhD	4,020

Source: Jo Riolo, Statistician, University Registrar's Office (1959-60 - present).

Notes: Hearing and Speech Sciences includes Speech Pathology & Audiology (1959-60 - 1968-69, except 1 PhD in 1967-68 and 3 PhD's in 1968-69), Speech & Hearing Sciences (1 PhD in 1967-68, 3 PhD's in 1968-69, 7 PhD's in 1969-70), and Hearing & Speech Sciences (1970-71 - present).
Other includes AB's in Basic Medical Sciences, AM's in Medical Sciences, and MS's in Health Services Administration.
AB = Bachelor of Arts.
BS = Bachelor of Science.
AM = Master of Arts.
MS = Master of Science.
MD = Doctor of Medicine.
PhD = Doctor of Philosophy.

TABLE 4: MEDICAL SCHOOL COURSES TAKEN BY NON-MEDICAL SCHOOL STUDENTS, BY UNDERGRADUATE/GRADUATE STATUS, MAJOR, AND MEDICAL SCHOOL DEPARTMENT OFFERING COURSE, 1972-73 - Page 1

Major		Department Offering Course																TOTAL UNITS
		Anat	Anes	Bioc	FCPM	Gene	Micro	Med	Neuro	Path	Peds	Pharm	Physio	Psych	Rad	Surg	Inde	
Undeclared:	UG	15		15	3	3	52			12	4		4	55	6			169
Undeclared:	G			15	7				10		3	6	12	3	2		4	62
Graduate Special:	G	18		80	4	3		2		11	3	9	52	11	2			195
School of Business:	G				131													131
School of Education:	G	16		20			3					9	9	23			9	89
Aeronautics & Astro:	G	18			3													21
Chemical Engineering:	G	10		17						1								28
Civil Engineering:	UG													3				3
	G			20	5													25
Electrical Engineering:	G	15		15			12	2									4	48
General Engineering:	G	4																4
Industrial Engineering:	G	4			2													6
Mat. Sci. & Eng.:	G	8			3					10								21
Mechanical Engineering:	G	22																22
Engineering:	G	4																4
Biophysics:	G			24						38								62
Applied Physics:	G									1								1
Anthropology:	UG			5										3				8
	G				2													2
Art:	UG	8												3				11
Human Biology:	UG	32		120	17	9	35	13		21	3	2	21	46		8		327
	G			15			3	5		1				4	5			33
Biological Sciences:	UG	16	6	374	20	31	118	10	2	5		27	24	14		11	11	669
	G	5		119		3	5					6				1	4	143
Chemistry:	UG			146		8	18			8	5	9	7	7				208
	G			108				1		2		22	14					147
Communication:	UG						13							5				18
	G									1								1
Economics:	UG													9				9
English:	UG	5										1	4					10
Interdepartmental:	UG							3										3
Latin American Studies:	UG														3	3		6
History:	G				1													1
Humanities Specials:	UG														2			2
Mathematics:	UG			5			3											8
	G				3													3
German Studies:	UG	5											3					8
	G			5														5
Music:	UG													5				5
Philosophy:	UG									3				3				6
Physics:	G			15														15

TABLE 4: MEDICAL SCHOOL COURSES TAKEN BY NON-MEDICAL SCHOOL STUDENTS, BY UNDERGRADUATE/GRADUATE STATUS, MAJOR, AND MEDICAL SCHOOL DEPARTMENT OFFERING COURSE, 1972-73 - Page 2

Major		Department Offering Course																TOTAL UNITS
		Anat	Anes	Bioc	FCPM	Gene	Micro	Med	Neuro	Path	Peds	Pharm	Physio	Psych	Rad	Surg	Inde	
Political Science:	UG	5			4		6	1					6	3				25
	G													2				2
Psychology:	UG	4		25	3		5					1		33		4	5	80
	G	7		5						6	3	1	13	11				46
Social Thought...:	UG														2			2
Computer Science:	UG			5														5
	G			8														8
School of Law:	G													33				33
Geology:	UG													3				3
	G			10			12			1								23
TOTAL:	UG	90	6	695	47	51	250	27	2	49	12	40	69	192	8	28	19	1,585
	G	131		476	161	6	35	10	10	72	9	53	100	87	9	1	21	1,181
	UG + G	221	6	1,171	208	57	285	37	12	121	21	93	169	279	17	29	40	2,766

Source: University Registrar's Office records as compiled by Medical School Student Affairs Office.

Notes:
Anat = Anatomy
Anes = Anesthesia
Bioc = Biochemistry
FCPM = Family, Community, and Preventive Medicine
Gene = Genetics
Micro= Medical Microbiology
Med = Medicine
Neuro= Neurology
Path = Pathology
Peds = Pediatrics
Pharm= Pharracology
Physio=Physiology
Psych= Psychiatry
Rad = Radiology
Surg = Surgery
Inde - Interdepartmental

UG = Undergraduate
G = Graduate

TABLE 5: TEACHING BY MEDICAL SCHOOL FACULTY OF NON-MEDICAL SCHOOL STUDENTS AND TEACHING BY NON-MEDICAL SCHOOL FACULTY OF MEDICAL SCHOOL STUDENTS, 1973-74

	Line	Total Units (and FTE's)	
Medical School faculty teaching non-Medical School students:			
In Medical School courses	A	3,455	(77)
In non-Medical School courses	B	14,263	(317)
	C=A+B	17,718	(394)
Non-Medical School faculty teaching Medical School students:			
In non-Medical School courses	D	2,262.5	(50)
In Medical School courses	E	102	(2)
	F=D+E	2,364.5	(53)
Net	G=C-F	15,353.5	(341)

Source: Computer file of University Registrar's Office data accessed by Analytical Studies.

Notes: FTE = 1 full-time student = 45 units per academic year.

TABLE 6: NON-MEDICAL SCHOOL COURSES TAUGHT BY MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL AND NON-MEDICAL SCHOOL STUDENTS, 1973-74 - Page 1

Dept. of Course / Dept. of Instructor	ANAT	ANES	BIOC	DERM	FCPM	GENE	OBGY	MICR	MED	PATH	PED	PHRM	PHSL	PSY	RAD	SURG	TOTAL	Med. Sch. Stu.	Other
African & Afro-American Studies																			
Courses														1			1		
Instructors														1			1		
Enrollments														62			62	1	61
Units														189			189	3	186
Anthropology																			
Courses														3		1	4		
Instructors														1		1	2		
Enrollments														19		18½	37½	½	37
Units														95		86	181	2½	178½
Applied Physics																			
Courses																2	2		
Instructors																1	1		
Enrollments																3	3		3
Units																33	33		33
Biological Sciences																			
Courses		9	2		6	1	5	8	16	4	4	1	10	3	7	76			
Instructors		4	2		3	1	3	7	7	3	2	1	3	2	6	44			
Enrollments		10	2		6	1	8	16	19	4	5	27	11	3	7	119	2		117
Units		59	10		57	3	35	68	112	13	22	81	57	9	39	565	6		559
Electrical Engineering																			
Courses								1				1					2		
Instructors								1				1					2		
Enrollments								1				53					54		54
Units								9				159					168		168
Freshman Seminars																			
Courses	1				1		1	4		1	2	1	7		4	22			
Instructors	1				1		1	4		1	2	1	4		2	17			
Enrollments	9				11		12	42		7	19	11	75		36	222			222
Units	27				33		36	126		21	57	33	225		108	666			666

TABLE 6: NON-MEDICAL SCHOOL COURSES TAUGHT BY MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL AND NON-MEDICAL SCHOOL STUDENTS, 1973-74 - Page 2

Dept. of Course / Dept. of Instructor	ANAT	ANES	BIOC	DERM	FCPM	GENE	OBGY	MICR	MED	PATH	PED	PHRM	PHSL	PSY	RAD	SURG	TOTAL	Med. Sch. Stu.	Other
Graduate Specials																			
Courses									1					1			2		
Instructors									1					1			2		
Enrollments									1					1			2	1	1
Units									8					9			17	8	9
Hopkins Marine Biology																			
Courses													3				3		
Instructors													1				1		
Enrollments													22				22		22
Units													281				281		281
Human Biology																			
Courses						9				5			1	21	1		37		
Instructors						4				3			1	6	1		15		
Enrollments						332				306			30	1287	67		2022	24½	1997½
Units						1153				1166			150	5213	201		7883	104	7779
Law																			
Courses														2			2		
Instructors														1			1		
Enrollments														12½			12½	1	11½
Units														37½			37½	3	34½
Linguistics																			
Courses																3	3		
Instructors																2	2		
Enrollments																107½	107½		107½
Units																391	391		391
Mechanical Engineering																			
Courses						1											1		
Instructors						1											1		
Enrollments						24											24		24
Units						72											72		72

TABLE 6: NON-MEDICAL SCHOOL COURSES TAUGHT BY MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL AND NON-MEDICAL SCHOOL STUDENTS, 1973-74 - Page 3

Dept. of Course / Dept. of Instructor	ANAT	ANES	BIOC	DERM	FCPM	GENE	OBGY	MICR	MED	PATH	PED	PHRM	PHSL	PSY	RAD	SURG	TOTAL	Med. Sch. Stu.	Other
Psychology																			
Courses														33		3	36		
Instructors														6		2	8		
Enrollments														1107½		4	1111½	19	1092½
Units														3475½		17	3492½	63	3429½
Sociology																			
Courses														1			1		
Instructors														1			1		
Enrollments														13½			13½		13½
Units														27			27		27
Stanford Workshops on Political & Social Issues (SWOPSI)																			
Courses														5			5		
Instructors														1			1		
Enrollments														72			72		72
Units														286			286		286
Statistics																			
Courses					6												6		
Instructors					1												1		
Enrollments					13½												13½		13½
Units					42½												42½		42½
Transfer Seminars																			
Courses														1			1		
Instructors														1			1		
Enrollments														10			10		10
Units														30			30		30
Urban Studies																			
Courses					1												1		
Instructors					1												1		
Enrollments					1												1		1
Units					3												3		3

TABLE 6: NON-MEDICAL SCHOOL COURSES TAUGHT BY MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL AND NON-MEDICAL SCHOOL STUDENTS, 1973-74 - Page 4

Dept. of Course \ Dept. of Instructor	ANAT	ANES	BIOC	DERM	FCPM	GENE	OBGY	MICR	MED	PATH	PED	PHRM	PHSL	PSY	RAD	SURG	TOTAL	Med. Sch. Stu.	Other
Values, Technology and Society																			
Courses														1			1		
Instructors														1			1		
Enrollments														22			22		22
Units														88			88		88
Grand Totals																			
Courses	1	9	2	7	17	1	6	14	16	10	6	7	86	4	20	206			
Instructors	1	4	2	2	6	1	4	12	7	6	4	5	19	2	11	86			
Enrollments	9	10	2	14½	373	1	20	60	19	317	24	143	2692½	70	176	3931	49	3882	
Units	27	59	10	45½	1315	3	71	211	112	1200	79	704	9732	210	674	14452½	189½	14263	
FTE's	1	1		1	29		2	5	2	27	2	16	216	5	15	321	4	317	

Source: Computer file of University Registrar's Office data accessed by Analytical Studies.

Notes:
ANAT = Anatomy
ANES = Anesthesia
BIOC = Biochemistry
DERM = Dermatology
FCPM = Family, Community & Preventive Medicine
GENE = Genetics
OBGY = Gynecology and Obstetrics
MICR = Medical Microbiology
MED = Medicine
PATH = Pathology
PED = Pediatrics
PHRM = Pharmacology
PHSL = Physiology
PSY = Psychiatry
RAD = Radiology
SURG = Surgery
Med. Sch. Stu. = Students enrolled in degree programs of School of Medicine
Other = All other students in the University

Courses - A course is counted each quarter it is offered, e.g., if offered during two quarters, counted as 2 courses.

Instructors - Grand Totals of Instructors do not necessarily equal sum of column, i.e., an instructor teaching courses in two different departments is counted only once in Grand Total.

Enrollments - Equals total number of instances in which a student's name appears on a course enrollment list, e.g., if a student took 2 courses each quarter for 4 quarters, he/she would appear as 8 enrollments. (Note that this is not equal to the total number of different students taking courses.)

TABLE 6: NON-MEDICAL SCHOOL COURSES TAUGHT BY MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL AND NON-MEDICAL SCHOOL STUDENTS, 1973-74 - Page 5

Notes (continued):

Units - Equals total units received by all students in category for courses taken in department indicated.

FTE's - Equals 1 full-time student, i.e., 45 units per academic year.

TABLE 7: NON-MEDICAL SCHOOL COURSES TAUGHT BY NON-MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL STUDENTS, 1973-74 - Page 1

SCHOOL/Dept. of course / Major of student	HSA	BIOC	GENE	MICR	PHRM	PHSL	MD PROG	NURS	PT	H&SS	N&BS	Grad.	Under-Grad.	TOT. UNITS
BUSINESS (GRADUATE)	196g						26g					222		222
EARTH SCIENCES:														
Petroleum Engineering				2u									2	2
EDUCATION							4g		18g			22		22
ENGINEERING:														
Aeronautics & Astronautics				3u									3	3
Electrical Engineering							7g					7		7
General Engineering				5g 3u			13g					18	3	21
Industrial Engineering	4g			3u			16g		8g			28	3	31
Operations Research							8g		4g			12		12
Engineering	1g											1		1
HUMANITIES & SCIENCES:														
Humanities Area														
Art				21u			12g	4u	9g			21	25	46
Asian Languages				23u			19g			6g		25	23	48
Classics				6u				4u					10	10
English				34u			15g	10u		5g		20	44	64
History				13u				4u					17	17
Humanities Special Programs							5g	5u				5	5	10
French & Italian				16u			7g					7	16	23
German Studies				56u									56	56
Slavic Languages & Literatures							6g					6		6

TABLE 7: NON-MEDICAL SCHOOL COURSES TAUGHT BY NON-MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL STUDENTS, 1973-74 - Page 2

SCHOOL/Dept. of course / Major of student	HSA	BIOC	GENE	MICR	PHRM	PHSL	MD PROG	NURS	PT	H&SS	N&BS	Grad.	Under-Grad.	TOT. UNITS
Humanities Area (continued)														
Spanish & Portuguese				5u		5g	37g	9u				42	14	56
Linguistics				16g 3u			19g	5u		28g		63	8	71
Music			1g	20u	1g		20g	7u	10g			32	27	59
Philosophy				23u			14g					14	23	37
Religious Studies								10u					10	10
Drama				7u									7	7
Sciences & Math. Area														
Biological Sciences		3g	6g	21g 218u	26g		42g			4g	101g	203	218	421
Chemistry	8g	6g	3g	9g 151u	9g	3g	8g			4g		50	151	201
Mathematics				27u						4g		4	27	31
Physical Sciences				3u				3u					6	6
Physics				92u		2g						2	92	94
Statistics			6g	4u			10g					16	4	20
Computer Science		3g		8u	4g		6g				3g	16	8	24
Social Sciences Area														
Anthropology				28.5u			5g					5	28.5	33.5
Communication				9u			13g	4u				13	13	26
Economics				5u									5	5
Political Science				14u									14	14
Psychology			1.5g	53u			44g	14u	6g	31g	26.5g	109	67	176
Sociology				14u									14	14

TABLE 7: NON-MEDICAL SCHOOL COURSES TAUGHT BY NON-MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL STUDENTS, 1973-74 - Page 3

SCHOOL/Dept. of course / Major of student	HSA	BIOC	GENE	MICR	PHRM	PHSL	MD PROG	NURS	PT	H&SS	N&BS	Grad.	Under-Grad.	TOT. UNITS
LAW				5u			6g	5u				6	10	16
OTHER:														
Graduate Division Special Programs							28g				1g	29		29
Physical Education for Men & Women	2g		1g	1g 38u	2g		33g	18u	5g	2g	1g	47	56	103
Stanford Overseas Campuses				83u									83	83
Human Biology				25u							12g	12	25	37
Learning Assistance Center				6u					2g			2	6	8
Undergraduate Special Courses				9u				23u					32	32
Undergraduate Writing Program				6u									6	6
Urban Studies Program				3u									3	3
Stanford Workshops on Political & Social Issues (SWOPSI)				3u		6g						6	3	9
Values, Technology & Society Program				4u									4	4
Seminars for Entering Students				3u									3	3
Other	6g	15g					2g					23		23
Subtotal - Graduate	217	27	18.5	52	42	16	425		62	84	144.5	1088		
Subtotal - Undergrad.				1049.5				125					1174.5	
TOTAL	217	27	18.5	1101.5	42	16	425	125	62	84	144.5			2262.5

TABLE 7: NON-MEDICAL SCHOOL COURSES TAUGHT BY NON-MEDICAL SCHOOL FACULTY TO MEDICAL SCHOOL STUDENTS, 1973-74 - Page 4

Source: Computer file of University Registrar's Office data accessed by Analytical Studies.

Notes:

HSA	= Health Services Administration	MD PROG	= M.D. Program
BIOC	= Biochemistry	NURS	= Nursing
GENE	= Genetics	PT	= Physical Therapy
MICR	= Medical Microbiology	H&SS	= Hearing & Speech Sciences
PHRM	= Pharmacology	N&BS	= Neuro- & Biobehavioral Sciences
PHSL	= Physiology	g	= Graduate Students
		u	= Undergraduate Students

Figures shown are total units received by all students in category for courses taken in department indicated.

TABLE 8: INVOLVEMENT OF MEDICAL SCHOOL FACULTY IN FRESHMAN SEMINARS

	Total Number Of Courses	Number Taught By Medical School Faculty	Title of Course (and Department of Medical School Faculty Member)
Natural Sciences:	28	10	Changing Pattern of Human Surgical Disease (Surgery)
			Topics in Chemical Ecology (Biochemistry)
			For the Self-Doubting Premedical Student (Medicine)
			Psychophysiology of Altered State of Consciousness (Physiology)
			Alcohol (Pharmacology)
			Thanatology and Homotransplantation (Psychiatry)
			Science, Drugs, and Society (Pharmacology)
			View of Genetics and Geneticists (Genetics)
			Man and Evolution (Psychiatry)
			Skin through History (Dermatology)
Social Sciences:	23	5	The Evils of Sociological Planning (Surgery)
			Medicine in the New Society (Medicine)
			Evolution and the Twentieth Century (Psychiatry)
			Perspectives in Medicine (Medicine)
			Mind and Brain: Problems in Internal Ecology (Psychiatry)
Humanities:	27	3	Jewish Life and Tradition in Eastern Europe (Medical Microbiology)
			Charlie Chaplin and Silent Film Comedy (Pediatrics)
			Novelist as Medical Savant (Medicine and Physiology)
Writing Requirement:	9	-	
Total	87	18	

Source: Approaching Stanford - 1973.

TABLE 9: INVOLVEMENT OF MEDICAL SCHOOL FACULTY IN STANFORD WORKSHOPS ON POLITICAL AND SOCIAL ISSUES, 1974-75

Of the 65 offerings listed in the SWOPSI publications eight had Medical School sponsors (department of sponsor indicated in parenthesis):

Peer Counseling Techniques in Drop-in Centers - offered three quarters (Medicine)

Working in Behavior Modification Classrooms for Young Handicapped Children - offered two quarters (Psychiatry)

Volunteer Work with Autistic and Schizophrenic Children (Psychiatry)

Contraceptive Counseling (Medicine)

Medicine and Its Alternatives (Medicine)

Source: Quarterly SWOPSI course listings.

TABLE 10: FACULTY WITH APPOINTMENTS IN BOTH MEDICAL SCHOOL AND NON-MEDICAL SCHOOL DEPARTMENTS, as of 9/1/74

Number of Faculty	Primary Department	Secondary Department
1	Anthropology	Pediatrics (by courtesy)
1	Family, Community & Preventive Medicine (FC&PM)	Statistics (by courtesy)
3	Statistics	FC&PM
1	Graduate School of Business (GSB)	FC&PM (by courtesy)
1	Economics	FC&PM
1	FC&PM	GSB (by courtesy)
1	Genetics	Biological Sciences
1	FC&PM	Economics (by courtesy)
1	Electrical Engineering	Radiology
1	Psychiatry & Behavioral Sciences	Psychology
1	Psychology	Surgery (by courtesy)
1	Biological Sciences	Pharmacology
1	Physics	Radiology (by courtesy)
1	Sociology	FC&PM (by courtesy)
1	Psychiatry & Behavioral Sciences	Psychology School of Education (by courtesy)
1	Engineering-Economic Systems	FC&PM (by courtesy)
1	Medicine	Biological Sciences

Source: Office of the Medical School Associate Dean for Faculty Affairs.

Notes: Appointments are joint unless otherwise indicated, i.e., by courtesy.

TABLE 11: ANALYSIS OF EXPENDITURES BY SCHOOL AND FUNCTION, 1973-74

	Instruction			Research			Total Expenditures			
	Operating Budget	Outside Operating Budget	Total	Operating Budget	Outside Operating Budget	Total	Operating Budget	Outside Operating Budget	Total	Percent Outside
Graduate School of Business	$ 2,741	$ 719	$ 3,460	$ 8	$ 169	$ 177	$ 2,749	$ 888	$ 3,637	24%
Earth Sciences	1,195	184	1,379	8	592	600	1,203	776	1,979	39
Education	1,452	815	2,267	21	1,482	1,503	1,473	2,297	3,770	60
Engineering	4,868	1,159	6,027	41	7,432	7,473	4,909	8,591	13,500	63
Humanities and Sciences	13,941	3,022	16,963	73	8,129	8,202	14,014	11,151	25,165	44
Law	2,068	220	2,288	9	211	220	2,077	431	2,508	17
Medicine	6,745	8,329	15,074	124	17,482	17,606	6,869	25,811	32,680	79
Not designated to schools	4,196	1,301	5,497	527	9,231	9,758	4,723	10,532	15,255	69
Totals	$37,206	$15,749	$52,955	$ 811	$44,728	$45,539	$38,017	$60,477	$98,494	61%

Source: Office of the Associate Controller of the University.

Notes: Figures are in thousands of dollars.

TABLE 12: FUNDED SPONSORED RESEARCH BASED IN THE MEDICAL SCHOOL INVOLVING EITHER A CO-INVESTIGATOR OR DESIGNATED CONSULTANT IN ANOTHER SCHOOL, AS OF 8/75 - Page 1

Title	Investigator	Department
Pion Radiotherapy: Preclinical Physics & Radiobiology	PI	Radiology
	Co-I	Radiology
	Co-I	Physics
Micropuncture Studies of the Mammalian Renal Medulla	PI	Medicine
	Co-I	Medicine
	Co-I	Chemical Engineering
Academic Career Development Award in Digestive Diseases	PI	Medicine
	Cons - 4	Medicine
	Cons	Pathology
	Cons	Statistics and Family, Community & Preventive Medicine (FC&PM)
Superconducting Magnetometry for Detection of Heart Disease	PI	Physics
	Co-I	Medicine
Computer-Based Consultations in Clinical Therapeutics	PI	Medicine
	Co-I	"
	Cons	"
	Cons - 2	Computer Science
A Quantitative Study of Anesthetic & Related Drugs	PI	Anesthesia
	Co-I - 3	"
	Co-I	Biological Sciences
	Co-I	FC&PM and Statistics
Biomedical Technology Transfer	PI	Medicine
	Cons - 2	Electrical Engineering
High Frequency NMR Biotechnical Resource	PI	Pharmacology
	Co-I	Chemistry
Amphibian Toxins, Chemistry & Pharmacology	PI	Chemistry
	Co-I	Physiology
Physiology of the Oviduct	PI	Surgery
	Co-I	Electrical Engineering
Stanford University Medical Experimental Computer Facility	PI	Genetics and Biological Sciences
	Co-I	Computer Science
Resource-Related Research - Computers & Chemistry	PI	Chemistry
	Co-I	Genetics and Biological Sciences
	Co-I	Computer Science
Cytochemical Studies of Planetary Microorganisms	PI	Genetics and Biological Sciences
	Co-I	Genetics
	Co-I	Chemistry

TABLE 12: FUNDED SPONSORED RESEARCH BASED IN THE MEDICAL SCHOOL INVOLVING EITHER A CO-INVESTIGATOR OR DESIGNATED CONSULTANT IN ANOTHER SCHOOL, AS OF 8 - Page 2

Title	Investigator	Department
A Controlled Clinical Trial of Acetyl Salicylic Acid & C.S. Acid-Dipyrimad. on Incidence of Post-Op. Thromboemb. in Hip Replace. Patients	PI	Medicine
	Co-I	"
	Co-I	Surgery
	Cons	Statistics and FC&PM
	Cons	Medicine
Artherosclerosis Behavioral & Epidemiological Studies	PI	Medicine
	Co-I - 3	"
	Co-I - 2	Communications
	Cons	FC&PM and Statistics
Pathophysiology of Hemophilia	PI	Medicine
	Cons	Pediatrics
	Cons	Statistics and FC&PM
Impact of Hospital Characteristics on Surgical Outcomes & Length of Stay	PI	Anesthesia
	Co-I	FC&PM and Statistics
	Co-I	Sociology and FC&PM
Studies of the Determinants of Service Intensity in Medical Care Sector	PI	Anesthesia
	Co-I	FC&PM and Statistics

Source: Medical School Business and Finance Office, Grants and Contracts Section.

Notes: PI = Principal Investigator.
Co-I = Co-Investigator.
Cons = Consultant.

TABLE 13: MEDICAL CENTER PARTICIPATION ON UNIVERSITY COMMITTEES, 1974-75 - Page 1

Total Membership	Medical Center Members	Committee
65	9	Seventh Senate of the Academic Council
7	1	Advisory Board
		Senate Committees:
7	1	Steering Committee
8	1	Committee on Committees
10	3	Floor Management Committee for the Report of the Committee on the Professoriate at Stanford
5	2	Committee of Tellers
		Committees of the Academic Council:
13	1	Committee on Academic Appraisal and Achievement
14	2	Committee on Research
11	1	Committee on Undergraduate Studies
12	1	Subcommittee on Advising
16	-	Other subcommittees (N=2)
91	-	Other Committees (N=9)
		University Committees:
12	2	Committee on Computation Facilities
12	1	Committee on the Education and Employment of Women in the University
12	1	Committee on Faculty and Staff Affairs
15	1	Committee on Land and Building Development
63	-	Other committees and subcommittees (N=6)
31	-	Presidential Commissions
		Administrative Panels:
7	1	Panel on External Affirmative Action
11	4	Panel on Health and Safety
3	1	Subpanel on Biocides
8	6	Subpanel on Biohazard Control
1	-	Panel on Human Subjects in Research
13	1	Behavioral Science Subpanel
17	13	Medical Subpanel
10	8	Panel on Laboratory Animal Care
7	2	Panel on Privacy of Information
15	5	Panel on Radiological Hazards

TABLE 13: MEDICAL CENTER PARTICIPATION ON UNIVERSITY COMMITTEES, 1974-75 - Page 2

Total Membership	Medical Center Members	Committee
		Administrative Panels (continued):
14	2	Panel on Reviewing Officers for Level III of Grievance Procedure for Graduate Students Employed in Academic Functions at Stanford University
10	1	University Library Council
33	-	Other panels (N=5)
		Legislative and Judicial Bodies for Student Conduct:
7	1	Campus Judicial Panel
15	1	Committee of Fifteen
11	-	Other bodies (N=1)
		Trustee Committees:
4	1	Committee on Academic Affairs
11	-	Other committees (N=4)
		Unclassified:
3	1	Stanford Chapter of American Association of University Professors
8	1	Faculty Volunteer Group for The Campaign for Stanford
9	2	Board of Hospital Directors
14	1	Special Agency on Stanford Workshops on Political and Social Issues
12	2	Board of Directors of the Stanford Faculty Club
78	-	Other (N=9)
725	81	Total

Source: "Rosters Published for Stanford Faculty, Staff, and Students by the Office of the Academic Secretary (as of December 1, 1974)."

Notes: Figures include ex officio members.

TABLE 14: PROFILE OF APPLICANTS OFFERED ACCEPTANCE TO M.D. PROGRAM FOR ADMISSION IN SEPTEMBER, 1975 - Page 1

STANFORD APPLICANT POOL, 1974-75

	Male	Female	Total
Applicants:			
Non-minority	3,212	1,045 (25%)	4,257
Minority	289	111 (28%)	400
	3,501	1,156 (25%)	4,657
Offered places:			
Non-minority	81	40 (33%)	121
Minority	13	13 (50%)	26
	94	53 (36%)	147

INTERVIEWS CONDUCTED BY ADMISSION COMMITTEE, 1974-75

	Non-Minority	Minority	Total
Interviews:			
At Stanford	335	65	400
Regional	269	47	316
	604	112	716

AGE DISTRIBUTION OF ACCEPT GROUP
(at time of application)

	20 yrs.	20-25 yrs.	26-30 yrs.	30+ yrs.	Total
Entering Sept. 1974	8	140	7	-	155
Entering Sept. 1975	6	129	9	3	147

MAJORS REPRESENTED IN ACCEPT GROUP

	1973-74		1974-75	
Undergraduate Major	Applicants	Accepts	Applicants	Accepts
Biological sciences	51%	61%	51%	57%
Physical sciences & math.	18%	17%	19%	20%
Behavioral sciences	10%	4%	9%	6%
Social sciences	5%	7%	3%	7%
Literature & philosophy	5%	5%	5%	9%
Engineering	4%	2%	8%	-
Others	6%	5%	5%	1%

GRADUATE EXPERIENCE IN ACCEPT GROUP

	Doctorate	Master's	Teaching Credential	Total
Entering Sept. 1974 (N=155)	2	10	1	13
Entering Sept. 1975 (N=147)	10	7	-	17

TABLE 14: PROFILE OF APPLICANTS OFFERED ACCEPTANCE TO M.D. PROGRAM FOR ADMISSION IN SEPTEMBER, 1975 - Page 2

UNDERGRADUATE COLLEGES REPRESENTED IN ACCEPT GROUP

The following institutions were represented by five or more students among the 147 accepted:

Harvard
Stanford
U.C.L.A.
Yale

The following institutions were represented by two to four students:

Antioch
Brown
Cal. State Univ., Los Angeles
Johns Hopkins
M.I.T.
New York University
Pomona
Radcliffe
Tufts
U.C., Berkeley
U.C., Irvine
U.C., San Diego
U.C., Santa Cruz
University of Michigan
Wellesley

One student has been accepted from each of the following institutions:

Amherst College
Arizona State University
Boston University
Brandeis University
Brigham Young University
California Inst. of Technology
California Polytechnic State
Cornell University
Dartmouth College
Duke University
Emory University
Georgetown University
Howard University
Immaculate Heart College
Marquette University
Mary Washington College (Va.)
Michigan State University
Morehouse College
New Mexico State University
Northwestern University
Notre Dame University
Oberlin College
Ohio State University
Princeton University
San Jose State University
Smith College
Southern University
Stanislaus State College
S.U.N.Y., Buffalo
Syracuse University
Union College
U.C., Davis
University of Chicago
University of Maryland
University of New Mexico
University of Oregon
University of the Pacific
University of Pennsylvania
University of Southern California
University of Santa Clara
University of Vienna (Austria)
University of Wisconsin
Vassar College
Wesleyan University
Whitman College

A total of 64 schools are represented in the accept group.

Source: Medical School Admission Committee Office.

Notes: Data compiled on the 147 applicants accepted by the Committee as of July 1.

TABLE 15: MEDICAL CENTER HOUSESTAFF AND POSTDOCTORAL FELLOWS, 1959-60 - PRESENT

Academic Year	Postdoctoral Fellows (PDF)			Housestaff (HS)				
					Residents			Interns + Residents
	≠ HS	= HS	Total	Interns	≠ PDF	= PDF	Total	
1959-60								
1960-61								
1961-62	65			15			175	190
1962-63	116			19			184	203
1963-64	151			19			203	222
1964-65	150			24			198	222
1965-66	151			32			216	248
1966-67	168	40	208	39	187	40	227	266
1967-68	141	41	182	38	191	41	232	270
1968-69	203	65	268	39	182	65	247	286
1969-70	199	66	265	43	188	66	254	297
1970-71	218	59	277	39	181	59	240	279
1971-72	212	59	271	48	181	59	240	288
1972-73	222	43	265	45	227	43	270	315
1973-74	232	45	277	49*	254	42	296	345
1974-75	231	41	272	56	268.5	41	309.5	365.5
1975-76	251	-	251	60	325	-	325	385

Source: Marjorie Johnson, Medical School Special Reports Office (1959-60 - 1965-66); Rosemary Hornby, Medical School Personnel Office (1966-67 - 1972-73); Helen Rantz, Director, Housestaff Office, and Joan Tang, Medical School Business and Finance Office (1973-74 - present).

Notes: * 3 of 49 were also postdoctoral fellows.

TABLE 16: MEDICAL CENTER HOUSESTAFF, BY DEPARTMENT AND HOSPITAL ASSIGNMENT, 1974-75 (as of 9/1/74) - Page 1

		SUH	PAVAH	SCVMC	Other	Total	
Anesthesia:	Interns	1				1	
	Residents	17	5	2	1 Children's Hospital of the East Bay	25	(2)
Cardiovascular Surgery:	Residents	6				6	(1)
Dermatology:	Residents	6	3	1	1 Chope 1 Kaiser - Santa Clara 1 Pacific Medical Center	13	
Gynecology & Obstetrics:	Residents	7		5	5 Kaiser - Santa Clara	17	
Medicine:	Interns	11	6		1 Chope	18	
	Residents	16	15	2		33	
Neurology:	Residents	7	4	1		12	(5)
Pathology:	Interns	4	1			5	
	Residents	9	3			12	
Pediatrics:	Interns	7		1	3 Children's Hospital at Stanford	11	
	Residents	14		6	3 Children's Hospital at Stanford 2 Kaiser - Santa Clara 1 Cowell	26	
Psychiatry:	Interns	2	3	1		6	
	Residents	15	13	5	1.5 Children's Health Council 1 Park Alameda Hospital 1 Cowell	36.5	(11)
Radiology:	Interns	1				1	
	Residents	24	9	1	1 Children's Hospital at Stanford 1 Sequoia	36	(13)
Surgery:	Interns	12	1	1		14	
	Residents	39	18	26	1 France 2 Children's Hospital at Stanford 1 Chope 1 R. K. Johnson - San Jose 1 Kaiser - Hawaii 1 Kaiser - Hayward 1 Queen's Hospital - Hawaii 1 Mexico City 1 San Joaquin	93	(9)

TABLE 16: MEDICAL CENTER HOUSESTAFF, BY DEPARTMENT AND HOSPITAL ASSIGNMENT, 1974-75 (as of 9/1/74) - Page 2

		SUH	PAVAH	SCVMC	Other	Total
Total:	Interns	38	11	3	4	56
	Residents	160	70	49	30.5	309.5 (41)
	Total	198	81	52	34.5	365.5 (41)

Source: Helen Rantz, Director, Housestaff Office.

Notes: SUH = Stanford University Hospital.
PAVAH = Palo Alto Veterans Administration Hospital.
SCVMC = Santa Clara Valley Medical Center.

Numbers in parentheses indicate portion of total who are also postdoctoral fellows.

TABLE 17: MEDICAL CENTER POSTDOCTORAL FELLOWS, BY DEPARTMENT AND LOCATION, 1974-75 (as of 9/1/74)

	Stanford Medical Center		Other			Total	
Anesthesia	2	(2)				2	(2)
Biochemistry	37					37	
Cardiovascular Surgery	1	(1)	3		Presbyterian Hospital - SF	5	(1)
			1		Palo Alto VA Hospital		
Dermatology	1					1	
Genetics	12					12	
Medicine	82		5		Palo Alto VA Hospital	87	
Neurology	5	(3)	3	(1)	Palo Alto VA Hospital	9	(5)
			1	(1)	Santa Clara Valley Med. Ctr.		
Pathology	10		1		Palo Alto VA Hospital	11	
Pediatrics	11		7		Children's Hospital at Stanford	18	
Pharmacology	16					16	
Physiology	5					5	
Psychiatry	21.5	(7.5)	2	(1)	Palo Alto VA Hospital	26	(11)
			1.5	(1.5)	Children's Health Council		
			1	(1)	Park Alameda Hospital		
Radiology	26	(11)	2	(2)	Palo Alto VA Hospital	28	(13)
Surgery	12	(6)	1	(1)	Chope	15	(9)
			1	(1)	Children's Hospital at Stanford		
			1	(1)	Outside Assignment		
Total	241.5	(30.5)	30.5	(10.5)		272	(41)

Source: Joan Tang, Medical School Business & Finance Office; Helen Rantz, Director, Housestaff Office.

Notes: Numbers in parentheses indicate portion of total who are also housestaff.

TABLE 18: POST-M.D. TRAINING PROGRAMS

Internship and Residency Programs

Anesthesiology
Dermatology
Internal Medicine
Neurological Surgery
Neurology
Nuclear Medicine
Obstetrics-Gynecology
Ophthalmology
Orthopedic Surgery
Otolaryngology
Pathology - Anatomic, Clinical
Pediatrics
Pediatric Allergy
Pediatric Cardiology
Physical Medicine & Rehabilitation
Plastic Surgery
Psychiatry
Psychiatry - Child Psychiatry
Radiology - Diagnostic
Radiology - Therapeutic
Surgery
Thoracic Surgery
Urology

Postdoctoral Fellowship Programs

Anesthesia
Dermatology
Gynecology and Obstetrics
Medical Microbiology
Medicine
- Cardiology
- Clinical Pharmacology
- Clinical Scholar
- Gastroenterology
- Hematology
- Immunology
- Infectious Diseases

Postdoctoral Fellowship Programs (cont.)

- Internal Medicine
- Nephrology
- Oncology
- Respiratory Medicine
- Urology

Neurology
- Clinical Neurology

Pediatrics
- Allergy-Immunology-Rheumatology-Pulmonary Disease
- Cardiology
- Developmental Biology
- Endocrinology-Metabolism
- Gastroenterology
- Genetics
- Hematology-Oncology
- Infectious Disease
- Neonatology
- Nephrology
- Neurology
- Teratology (Birth Defects)

Psychiatry
- Mental Health

Radiology
- Diagnostic Radiology
- Nuclear Medicine
- Radiation Therapy
- Radiobiology

Surgery
- Cardiovascular Surgery
- General Surgery
- Neurosurgery
- Ophthalmology
- Orthopedic Surgery
- Otolaryngology
- Plastic & Reconstructive Surgery
- Thoracic Surgery

Source: Helen Rantz, Director, Housestaff Office, and 1974-75 Stanford Medical School Bulletin, Part II.

TABLE 19: BEDS AVAILABLE FOR MEDICAL STUDENT TEACHING

	Medicine*	Pediatrics	Surgery	Total
Stanford University Hospital:				
Full-Time Faculty	59	22	93	174
Community Physicians**	8	11	50	69
Subtotal	(67)	(33)	(143)	(243)
Children's Hospital at Stanford		60		60
Palo Alto Veterans Administration Hospital	131		144	275
Santa Clara Valley Medical Center***	69	24	83	176
Total	267	117	370	754

Source: "Preliminary Report on Stanford University Hospital Expansion (Phase II)" submitted to the University Board of Trustees, June 15, 1973.

Notes: * Including dermatology, neurology, and physical medicine and rehabilitation.
** Adjusted to reflect teaching utilization intensity factor of 0.5.
*** Adjusted to reflect teaching utilization intensity factor of 0.7.

TABLE 20: COMPARISON OF UNIVERSITY HOSPITAL BEDS PER JUNIOR STUDENT AT STANFORD AND NINE COMPETITIVE MEDICAL SCHOOLS

Medical School (N=10)	University Hospital Beds	Junior Students	Beds Per Junior Student	Rank
University of California, Los Angeles	496	148	3.4	9 (8)
University of California, San Diego	466	69	6.8	4
University of California, San Francisco	553	148	3.7	7
University of Chicago	665	104	6.4	6
Duke University	802	120	6.7	5
Harvard University	2,122	165	12.9	1
Johns Hopkins University	1,073	121	8.9	2
STANFORD UNIVERSITY*	316 (242)	86	3.7 (2.8)	8 (9)
University of Washington, Seattle	324	126	2.6	10
Yale University	767	102	7.5	3
Average	758 (751)	119	6.3 (6.2)	

Source: "Preliminary Report on Stanford University Hospital Expansion (Phase II)" submitted to the University Board of Trustees, June 15, 1973.

Notes: * 316 = 242 full-time faculty beds + community physician beds adjusted by teaching utilization intensity factor.

TABLE 21: CONTINUING MEDICAL EDUCATION PROGRAM, 1969-70 - PRESENT

Academic Year	Program	Attendance	Hours	Total
1969-70	Intramural	1,465	89.5	31,473
1970-71	Intramural	1,706	415	37,299
	Extramural		120	3,600
				40,899
1971-72	Intramural	1,841	552	49,036
	Extramural		100	3,700
	Return Fellows	1	80	80
				52,816
1972-73	Intramural	3,235	533	50,689
	Extramural		90	4,840
	Return Fellows	3	80 ea.	240
				55,769
1973-74	Intramural	2,630	550	43,137
	Extramural		115	5,800
	Return Fellows	8		440
				49,377
1974-75	Intramural	5,187	661.5	75,845
	Extramural		118	5,800
	Return Fellows	9		520
				82,165

Source: Kathryne Borg, Executive Officer, Office of Postgraduate Medical Education.

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 1

Summary

School	(Pages 2 & 3)	894
Clinics	(Page 3)	59
Center-Wide	(Page 3)	196
Hospital	(Pages 4 - 9)	2,637
Total		3,786

Source: Hospital data - William Gilmor, Hospital Personnel Department (LP-POS-21, "Actual Positions and Personnel" dated 9/30/74).
School, Clinics & Center-Wide data - Diane Gunderson, Medical School Personnel Department (Staff Logs dated 9/74).

Notes: Hospital data - Includes all regular employees regardless of percentage of time employed. Full-time equivalent of 2,637 employees is approximately 2,214.
School, Clinics & Center-Wide data - Includes all regular employees working half-time or more.

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 2

School, Clinics & Center-Wide (Page 1 of 2)

Job Title	Anatomy	Anesthesia	Biochemistry	Cardiovascular Surgery	Dermatology	Family, Community & Preventive Medicine	Genetics	Gynecology & Obstetrics	Medical Microbiology	Medicine	Neurology	Pathology	Pediatrics	Pharmacology	Physical Therapy	Physiology	Psychiatry & Behavioral Sciences	Radiology	Surgery	Subtotal
Accountant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Accounting Assistant	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-	-	3
Accounting Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Administrative Assistant	-	1	1	1	1	1	2	1	1	8	1	2	1	-	-	-	5	4	3	33
Administrative Services Manager	1	1	-	-	1	1	1	-	1	4	-	1	2	-	-	1	1	1	1	17
Animal Caretaker	-	-	-	-	-	-	1	-	-	3	-	1	-	-	-	-	-	6	-	11
Associate Dean-Academic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Associate Staff Counsel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Audio Visual Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Audio Visual Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Autopsy Room Attendant	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Book Preserver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Book Publisher	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Business Equipment Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Cashier	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Charge Nurse	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Circulation Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Clinical Cytotechnologist	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-	-	-	4
Clinical Service Representative	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	3	5
Clinical Staff Nurse	-	-	-	2	-	-	-	-	-	4	-	-	1	-	-	-	-	-	1	8
Computer Systems Specialist	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Counselor	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	1	7
Data Aide	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	-	4
Dean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Dietician	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Financial Analyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Financial Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Graphic Artist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Graphic Composition Analyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Graphic Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Health Specialist	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Hostess	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Internal Auditor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Insurance Verification Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Laboratory Assistant	-	-	3	4	-	-	1	1	2	1	-	3	1	-	-	1	3	3	1	23
Laboratory Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Laboratory Glassware Washer	-	-	6	-	1	1	2	-	1	8	-	1	2	1	-	-	-	-	1	24
Laboratory Mechanician	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2
Laboratory Service Manager	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Librarian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Library Service Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Licensed Vocational Nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Life Science Research Assistant	-	1	5	2	1	1	13	-	5	35	2	9	11	3	-	2	15	6	15	126
Life Science Research Associate	1	2	3	2	4	1	11	-	2	16	1	4	3	3	-	3	5	11	7	79
Life Science Technician	3	-	5	1	1	1	9	1	3	30	1	10	4	5	-	-	5	19	5	103
Microfilm Machine Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Miscellaneous	1	-	-	-	-	1	-	-	-	5	1	-	-	-	2	-	5	3	6	24
Nurse Coordinator	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	2
Nursing Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Nursing Director	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Nursing Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Nursery Aide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Office Assistant	-	1	1	6	2	1	2	2	1	13	-	7	8	-	-	-	7	3	5	59
Offset Press Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Other Research Associate	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Patient Representative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Patient Service Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Patient Testing Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	-	4
Photographer	1	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	1	-	4
Photography Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Physical Science & Engineering Technician	-	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	4
Physical Science Research Assistant	-	-	-	-	-	-	1	-	-	4	-	-	-	-	-	-	-	-	-	5
Physician Specialist	-	3	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	5	10
Programmer	-	1	-	1	-	-	11	-	-	8	-	-	-	-	-	-	3	2	1	27
Programmer-Analyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Public Relations Officer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Reports Editor	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Research & Development Engineer	-	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	2	-	6
Science & Engineering Associate	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Science & Engineering Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2
Secretary	2	5	5	-	5	5	3	-	3	24	4	4	7	4	2	1	20	13	27	134
Social Science Research Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	9
Social Science Research Associate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Social Work Assistant	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Social Worker	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	1	-	-	6
Special Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Speech & Hearing Clinician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9
Specialist Typist	-	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	1	5
Storekeeper	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Technical Process Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Technical Process Specialist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Tissue Technician	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	6
University Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Writer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
TOTAL - SCHOOL, CLINICS & CENTER-WIDE	9	17	32	20	17	23	65	8	19	181	10	52	46	16	4	9	91	76	92	787

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 3

School, Clinics & Center-Wide (Page 2 of 2)

Job Title	Dean's Office	Fleischmann Laboratories	General Clinical Research	Instructional Media	Laboratory Animal Medicine	Lane Library	News Bureau	Student Affairs	Subtotal	TOTAL - SCHOOL	TOTAL - CLINICS	Vice President's Office	Finance	TOTAL - CENTER-WIDE	TOTAL - SCHOOL, CLINICS & CENTER-WIDE
Accountant	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Accounting Assistant	-	-	-	-	-	-	-	-	0	3	0	-	12	12	15
Accounting Supervisor	-	-	-	-	-	-	-	-	0	0	0	-	6	6	6
Administrative Assistant	5	-	-	1	1	-	1	2	10	43	1	2	13	15	59
Administrative Services Manager	-	-	1	-	-	-	-	1	2	19	1	1	3	4	24
Animal Caretaker	-	-	-	-	12	-	-	-	12	23	0	-	-	0	23
Associate Dean-Academic	1	-	-	-	-	-	-	-	1	1	0	-	-	0	1
Associate Staff Counsel	-	-	-	-	-	-	-	-	0	0	0	1	-	1	1
Audio Visual Operator	-	-	-	3	-	-	-	-	3	3	0	-	-	0	3
Audio Visual Supervisor	-	-	-	1	-	-	-	-	1	1	0	-	-	0	1
Autopsy Room Attendant	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Book Preserver	-	-	-	-	-	1	-	-	1	1	0	-	-	0	1
Book Publisher	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Business Equipment Operator	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Cashier	-	-	-	-	-	-	-	-	0	0	0	-	2	2	2
Charge Nurse	-	-	-	-	-	-	-	-	0	1	7	-	-	0	8
Circulation Assistant	-	-	-	-	-	4	-	-	4	4	0	-	-	0	4
Clinical Cytotechnologist	-	-	-	-	-	-	-	-	0	4	0	-	-	0	4
Clinical Service Representative	-	-	-	-	-	-	-	-	0	5	1	-	-	0	6
Clinical Staff Nurse	-	-	-	-	-	-	-	-	0	8	5	-	-	0	13
Computer Systems Specialist	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Counselor	-	-	-	-	-	-	-	-	0	7	2	-	-	0	9
Data Aide	-	-	-	-	-	-	-	-	0	4	0	-	-	0	4
Dean	-	-	-	-	-	-	-	-	0	0	0	1	-	1	1
Dietician	-	-	-	-	-	-	-	-	0	2	1	-	-	0	3
Financial Analyst	-	-	-	-	-	-	-	-	0	0	0	-	4	4	4
Financial Manager	1	-	-	-	-	-	-	-	1	1	0	-	6	6	7
Graphic Artist	-	-	-	1	-	-	-	-	1	1	0	-	-	0	1
Graphic Composition Analyst	-	-	-	-	-	-	-	-	0	0	0	-	1	1	1
Graphic Technician	-	-	-	3	-	-	-	-	3	3	0	-	-	0	3
Health Specialist	-	-	-	-	-	-	-	-	0	2	1	-	-	0	3
Hostess	1	-	-	-	-	-	-	-	1	1	0	-	-	0	1
Internal Auditor	-	-	-	-	-	-	-	-	0	0	0	-	3	3	3
Insurance Verification Clerk	-	-	-	-	-	-	-	-	0	0	0	-	4	4	4
Laboratory Assistant	-	-	-	-	-	-	-	-	0	23	0	-	-	0	23
Laboratory Coordinator	-	1	-	-	-	-	-	-	1	1	0	-	-	0	1
Laboratory Glassware Washer	-	-	-	-	-	-	-	-	0	24	0	-	-	0	24
Laboratory Mechanician	-	-	-	-	-	-	-	-	0	2	0	-	-	0	2
Laboratory Service Manager	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Librarian	-	-	-	-	-	7	-	-	7	7	0	-	-	0	7
Library Service Assistant	-	-	-	-	-	3	-	-	3	4	0	-	-	0	4
Licensed Vocational Nurse	-	-	-	-	-	-	-	-	0	0	8	-	-	0	8
Life Science Research Assistant	-	-	-	-	1	-	-	-	1	127	0	-	-	0	127
Life Science Research Associate	-	-	-	-	-	-	-	-	0	79	0	-	-	0	79
Life Science Technician	-	-	1	2	2	-	-	-	5	108	0	-	-	0	108
Microfilm Machine Operator	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Miscellaneous	-	-	1	-	1	-	-	-	2	26	0	1	4	5	31
Nurse Coordinator	-	-	-	-	-	-	-	-	0	2	0	-	-	0	2
Nursing Assistant	-	-	-	-	-	-	-	-	0	0	4	-	-	0	4
Nursing Director	-	-	-	-	-	-	-	-	0	0	1	-	-	0	1
Nursing Supervisor	-	-	-	-	-	-	-	-	0	1	2	-	-	0	3
Nursery Aide	-	-	-	-	-	-	-	-	0	0	2	-	-	0	2
Office Assistant	10	-	1	1	-	-	1	6	19	78	19	-	19	19	116
Offset Press Operator	-	-	-	-	-	-	-	-	0	0	0	-	3	3	3
Other Research Associate	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Patient Representative	-	-	-	-	-	-	-	-	0	0	0	-	74	74	74
Patient Service Clerk	-	-	-	-	-	-	-	-	0	0	0	-	17	17	17
Patient Testing Technician	-	-	-	-	-	-	-	-	0	4	2	-	-	0	6
Photographer	-	-	-	2	-	-	-	-	2	6	0	-	-	0	6
Photography Technician	-	-	-	1	-	-	-	-	1	1	0	-	-	0	1
Physical Science & Engineering Technician	-	-	-	1	-	-	-	-	1	5	0	-	-	0	5
Physical Science Research Assistant	-	-	-	-	-	-	-	-	0	5	0	-	-	0	5
Physician Specialist	-	-	-	-	-	-	-	-	0	10	0	-	-	0	10
Programmer	-	-	-	-	-	-	-	1	1	28	0	-	-	0	28
Programmer-Analyst	-	-	-	-	-	-	-	-	0	0	0	-	1	1	1
Public Relations Officer	-	-	-	-	-	-	1	-	1	1	0	-	-	0	1
Reports Editor	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Research & Development Engineer	-	-	-	-	-	-	-	-	0	6	0	-	-	0	6
Science & Engineering Associate	-	-	-	1	-	-	-	-	1	3	0	-	-	0	3
Science & Engineering Technician	-	-	-	-	-	-	-	-	0	2	0	-	-	0	2
Secretary	3	1	-	-	1	1	-	2	8	142	2	4	5	10	154
Social Science Research Assistant	-	-	-	-	-	-	-	-	0	9	0	-	-	0	9
Social Science Research Associate	-	-	-	-	-	-	-	-	0	1	0	-	-	0	1
Social Work Assistant	-	-	-	-	-	-	-	-	0	5	0	-	-	0	5
Social Worker	-	-	-	-	-	-	-	-	0	6	0	-	-	0	6
Special Assistant	-	-	-	-	-	-	-	-	0	0	0	1	-	1	1
Speech & Hearing Clinician	-	-	-	-	-	-	-	-	0	5	0	-	-	0	5
Specialist Typist	-	-	-	1	-	-	-	1	2	7	0	-	-	0	7
Storekeeper	-	1	-	-	-	-	-	-	1	2	0	-	-	0	2
Technical Process Assistant	-	-	-	-	-	4	-	-	4	4	0	-	-	0	4
Technical Process Specialist	-	-	-	-	-	3	-	-	3	3	0	-	-	0	3
Tissue Technician	-	-	-	-	-	-	-	-	0	6	0	-	-	0	6
University Manager	-	-	-	-	1	-	-	-	1	2	0	6	1	7	9
Writer	-	-	-	-	-	-	3	-	3	3	0	-	-	0	3
TOTAL - SCHOOL, CLINICS & CENTER-WIDE	21	3	4	18	19	23	6	13	107	894	59	17	179	196	1,149

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 4

Hospital (Page 1 of 6)

Job Title	Administration	Administration-Laboratory	Analysis & Review	Anesthesia	Architecture-Planning	Automated Laboratory Systems	Bed Control	Blood Transfusion Center	Cafeteria	Cancer Research Unit	Cardiac Catheterization Laboratory	Chaplaincy Service	Central Service	Chemistry	Clinical Laboratory-Hoover	Communications	Delivery Room	Diagnostic Radiology-General	East Nursery	EEG	EKG Laboratory	Emergency Room	Emergency Staff-Laboratory	Engineering
AA Degree Nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounting Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Coordinator-Housekeeping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bed Control Clerk	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bed Controller	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benefit-Compensation Analyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benefit-Compensation Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blood Gas Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cafeteria Supervisor	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardiology Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-
Cardiology Technician Supervisor	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardiology Technician Trainee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Cardiovascular Engineer	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardiovascular Process Nurse	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Central Service Assistant	-	-	-	-	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-	-	-	-
Certified Inhalation Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chief Reservation Clerk	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chief Respiratory Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chief Technician (EEG)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Chief Therapist (PT-OT)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clinical Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Clinical Laboratory Manager	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clinical Nurse Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communications Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-
Communications Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Computer Digital Engineer	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Computer Operator-Supervisor	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consultant	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cook	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coronary Care Physician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Courier Driver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crafts Foreman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Craftsman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Darkroom Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Darkroom Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-
Dialysis Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dietary Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dietary Worker	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dietician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dietician Trainee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Director	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Discharge Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dispatcher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dosimetry Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Draftsperson	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Emergency Service Training Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Employment Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employment Representative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineer	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Equipment Supervisor-Respiratory Therapy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Executive Housekeeper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food Service Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food Service Supervisor	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gardener	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Foreman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Hospital Technician	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Housekeeper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housekeeping Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housekeeping Specialist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Infection Control Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Information Supervisor	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Infusion Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inhalation Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inhalation Therapy Aide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inservice Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laboratory Assistant	-	9	-	-	-	-	-	4	-	-	1	-	-	7	-	-	-	-	-	-	-	-	6	-
Laboratory Technician	-	-	-	-	-	-	-	9	-	-	-	-	-	17	-	-	-	-	-	-	-	-	11	-
Laboratory Technologist	-	-	-	-	-	-	-	-	-	-	-	-	-	15	1	-	-	-	-	-	-	-	9	-
Laboratory Technician Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	2	-
Laundry Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laundry Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linen Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Licensed Vocational Nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 5

Hospital (Page 2 of 6)

Job Title	Facilities Protection	Filing	Grounds Crew	Hematology	Housekeeping	Housekeeping Administration	Immunology	Infection Control	Infectious Diseases	Interns & Residents	Laundry	Mail Services	Maintenance	Medical Director's Office	Medical Records	Messenger Service	Nursing Administration	Nursing Orientation	Nursing-Renal Care Unit	Nursing-All Other Units	Nursing Staff-Laboratory	Nuclear Medicine	Operating Room	Post Recovery Room
AA Degree Nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-
Accounting Assistant	-	-	-	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Coordinator-Housekeeping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bed Control Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bed Controller	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benefit-Compensation Analyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benefit-Compensation Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blood Gas Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cafeteria Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardiology Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardiology Technician Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardiology Technician Trainee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardiovascular Engineer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardiovascular Process Nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central Service Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Certified Inhalation Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chief Reservation Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chief Respiratory Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chief Technician (EEG)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chief Therapist (PT-OT)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clinical Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clinical Laboratory Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clinical Nurse Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-
Communications Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communications Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Computer Digital Engineer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Computer Operator-Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consultant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cook	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coronary Care Physician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Courier Driver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Crafts Foreman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Craftsman	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-
Darkroom Supervisor	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	-	-	-	-	-
Darkroom Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dialysis Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dietary Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-
Dietary Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dietician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dietician Trainee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Director	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	6	-	-	-	-	1	-	-
Discharge Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-
Dispatcher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dosimetry Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Draftsperson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Emergency Service Training Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employment Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employment Representative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineer	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Supervisor-Respiratory Therapy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Executive Housekeeper	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food Service Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gardener	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Foreman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hospital Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housekeeper	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	2	-	-
Housekeeping Assistant	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housekeeping Specialist	-	-	-	113	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Infection Control Supervisor	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Information Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Infusion Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Inhalation Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inhalation Therapy Aide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inservice Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laboratory Assistant	-	-	-	2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	5	1	-	-	-
Laboratory Technician	-	-	-	7	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laboratory Technologist	-	-	-	19	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laboratory Technician Supervisor	-	-	-	2	-	-	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laundry Assistant	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-
Laundry Coordinator	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Linen Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Licensed Vocational Nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	1	-	-	-	-

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 6

Hospital (Page 3 of 6)

Job Title	Parasitology	Parking Lot-General	Patient Food Service	Patient Placement Service	Pediatrics	Personnel	Personnel Health	Personnel Training & Development	Pharmacy	Physical & Occupational Therapy	Physiology	Premature Nursery	Premature Nursery-Blood Gas	Psoriasis Day Care	Radiation Therapy	Respiratory Therapy	Superficial Mycosis	Support Services	Surgical Technology	Tissue Typing	Transcription	Virology Laboratory	TOTAL - HOSPITAL
AA Degree Nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Accounting Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Area Coordinator-Housekeeping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Bed Control Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Bed Controller	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Benefit-Compensation Analyst	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Benefit-Compensation Manager	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Blood Gas Technician	-	-	-	-	-	-	-	-	-	-	15	-	11	-	-	-	-	-	-	-	-	-	26
Cafeteria Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cardiology Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Cardiology Technician Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cardiology Technician Trainee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cardiovascular Engineer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cardiovascular Process Nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Central Service Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Certified Inhalation Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	27
Chief Reservation Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chief Respiratory Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	2
Chief Technician (EEG)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chief Therapist (PT-OT)	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Clinical Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Clinical Laboratory Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Clinical Nurse Coordinator	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Communications Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Communications Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Computer Digital Engineer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Computer Operator-Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Consultant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cook	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Coronary Care Physician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Courier Driver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Crafts Foreman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Craftsman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Darkroom Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Darkroom Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Dialysis Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Dietary Assistant	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Dietary Worker	-	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93
Dietician	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Dietician Trainee	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Director	-	-	2	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Discharge Coordinator	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Dispatcher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Dosimetry Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Draftsperson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Emergency Service Training Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Employment Manager	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Employment Representative	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Engineer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Equipment Supervisor-Respiratory Therapy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Executive Housekeeper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Food Service Manager	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Food Service Supervisor	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Gardener	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
General Foreman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Hospital Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Housekeeper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Housekeeping Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Housekeeping Specialist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	134
Infection Control Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Information Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Infusion Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Inhalation Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4
Inhalation Therapy Aide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	3
Inservice Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Laboratory Assistant	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	45
Laboratory Technician	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2	-	60
Laboratory Technologist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	57
Laboratory Technician Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	12
Laundry Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Laundry Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Linen Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Licensed Vocational Nurse	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 7

Hospital (Page 4 of 6)

Job Title	Administration	Administration-Laboratory	Analysis & Review	Anesthesia	Architecture-Planning	Automated Laboratory Systems	Bed Control	Blood Transfusion Center	Cafeteria	Cancer Research Unit	Cardiac Catheterization Laboratory	Chaplaincy Service	Central Service	Chemistry	Clinical Laboratory-Hoover	Communications	Delivery Room	Diagnostic Radiology-General	East Nursery	EEG	EKG Laboratory	Emergency Room	Emergency Staff-Laboratory	Engineering
Machinist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maintenance Laborer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manager-Inhalation Therapy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manager-Mail Service	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master Locksmith	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Director	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Messenger Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear Medical Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nurse	-	-	-	2	-	-	-	1	-	9	-	-	1	-	-	-	14	4	43	-	-	27	-	-
Nursing Administrative Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nursing Assistant	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	-	3	2	8	-	-	15	-	-
Nursing Budget Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nursing Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nursing Research Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nursing Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nutritionist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupational Health & Safety Officer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupational Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupational Therapist-Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Assistant	-	2	13	-	2	3	-	-	-	-	-	-	1	-	-	-	-	22	-	-	2	-	-	-
Office Manager-Nursing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Manager-Personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking Lot Attendant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patient Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PBX Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Personnel Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Personnel Training Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pharmacist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pharmacy Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pharmacy Intern	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Physical Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Physical Therapy Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Planner-Architect	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Postal Courier	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Postal Meter Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Postal Superintendent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Programmer	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulmonary Function Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pump Profusionist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radiation Therapy Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radiation Therapy Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Records Administrator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreation Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Registered EEG Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
Registered Inhalation Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Research Diet Aide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Research Diet Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Research Dietician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seamer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Secretary	7	2	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	3	-	1	-	3	-	-
Security Officer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Specialist Typist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-
Storekeeper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surgical Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training Coordinator-Housekeeping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transcription Supervisor-Radiology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Transportation & Linen Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transporter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit Clerk	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	4	-	-	6	-	-
Unit Operations Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
X-Ray Service Engineer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
X-Ray Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-
X-Ray Technician Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-
TOTAL - HOSPITAL	7	15	13	9	13	7	10	14	28	11	8	1	38	42	1	10	18	94	61	4	25	52	27	2

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 8

Hospital (Page 5 of 6)

Job Title	Facilities Protection	Filing	Grounds Crew	Hematology	Housekeeping	Housekeeping Administration	Immunology	Infection Control	Infectious Diseases	Interns & Residents	Laundry	Mail Services	Maintenance	Medical Director's Office	Medical Records	Messenger Service	Nursing Administration	Nursing Orientation	Nursing-Renal Care Unit	Nursing-All Other Units	Nursing Staff-Laboratory	Nuclear Medicine	Operating Room	Pack Room-Central Supply
Machinist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maintenance Laborer	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-
Manager-Inhalation Therapy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manager-Mail Service	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Master Locksmith	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Director	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Messenger Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Nuclear Medical Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-
Nurse	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	7	-	19	572	2	-	98	-
Nursing Administrative Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Nursing Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225	-	-	48	-
Nursing Budget Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Nursing Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	6	-	-	-	-
Nursing Research Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Nursing Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-
Nutritionist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupational Health & Safety Officer	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupational Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupational Therapist-Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Assistant	-	36	-	-	-	-	-	-	2	1	-	-	1	1	-	-	6	-	-	-	-	-	-	-
Office Manager-Nursing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Office Manager-Personnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking Lot Attendant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patient Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PBX Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Personnel Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Personnel Training Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pharmacist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pharmacy Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pharmacy Intern	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Physical Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Physical Therapy Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Planner-Architect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Postal Courier	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-
Postal Meter Clerk	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Postal Superintendent	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Programmer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulmonary Function Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pump Profusionist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-
Radiation Therapy Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radiation Therapy Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Records Administrator	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreation Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Registered EEG Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Registered Inhalation Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Research Diet Aide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Research Diet Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
Research Dietician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Seamer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Secretary	1	-	-	-	-	1	1	-	4	1	-	-	-	2	1	-	10	1	1	1	-	4	1	-
Security Officer	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Specialist Typist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storekeeper	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surgical Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Training Coordinator-Housekeeping	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transcription Supervisor-Radiology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation & Linen Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Transporter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-
Unit Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	99	-	-	7	-
Unit Operations Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	3	-	-	-	-
X-Ray Service Engineer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
X-Ray Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
X-Ray Technician Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL - HOSPITAL	5	38	2	30	140	23	6	4	39	3	10	15	85	3	2	41	56	1	29	968	9	11	161	9

TABLE 22: MEDICAL CENTER STAFF, BY JOB TITLE & DEPARTMENT, 1974-75 - Page 9

Hospital (Page 6 of 6)

Job Title	Parasitology	Parking Lot-General	Patient Food Service	Patient Placement Service	Pediatrics	Personnel	Personnel Health	Personnel Training & Development	Pharmacy	Physical & Occupational Therapy	Physiology	Premature Nursery	Premature Nursery-Blood Gas	Psoriasis Day Care	Radiation Therapy	Respiratory Therapy	Superficial Mycosis	Support Services	Surgical Technology	Tissue Typing	Transcription	Virology Laboratory	TOTAL - HOSPITAL
Machinist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Maintenance Laborer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Manager-Inhalation Therapy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Manager-Mail Service	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Master Locksmith	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Medical Director	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Messenger Service Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Nuclear Medical Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Nurse	-	-	-	3	32	-	3	-	-	-	-	10	-	-	3	-	-	-	8	-	-	-	686
Nursing Administrative Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Nursing Assistant	-	-	-	-	14	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	325
Nursing Budget Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Nursing Instructor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Nursing Research Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Nursing Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Nutritionist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Occupational Health & Safety Officer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Occupational Therapist	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4
Occupational Therapist-Supervisor	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Office Assistant	-	-	1	-	-	4	1	1	7	2	-	-	-	-	3	2	-	-	-	-	8	-	121
Office Manager-Nursing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Office Manager-Personnel	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Parking Lot Attendant	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Patient Service Supervisor	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
PBX Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Personnel Assistant	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Personnel Training Coordinator	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Pharmacist	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Pharmacy Assistant	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Pharmacy Intern	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Physical Therapist	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	9
Physical Therapy Supervisor	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Planner-Architect	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Postal Courier	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Postal Meter Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Postal Superintendent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Programmer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Pulmonary Function Technician	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3
Pump Profusionist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	3
Radiation Therapy Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Radiation Therapy Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	10
Records Administrator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	3
Recreation Therapist	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Registered EEG Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Registered Inhalation Therapist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	12
Research Diet Aide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Research Diet Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Research Dietician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Seamer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Secretary	-	-	1	-	-	3	1	-	1	-	1	-	-	-	2	-	-	-	-	-	-	-	57
Security Officer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Specialist Typist	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	10	-	-	16
Storekeeper	-	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Surgical Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Training Coordinator-Housekeeping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Transcription Supervisor-Radiology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Transportation & Linen Manager	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Transporter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	47
Unit Clerk	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	129
Unit Operations Manager	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
X-Ray Service Engineer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
X-Ray Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
X-Ray Technician Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
TOTAL - HOSPITAL	1	5	118	5	60	19	5	2	30	18	20	10	11	1	25	53	2	15	8	2	19	3	2,837

TABLE 23: HOSPITAL MEDICAL STAFF, 1959-60 - PRESENT

Hospital Fiscal Year	Stanford Medical Staff			Palo Alto Medical Staff	Stanford + Palo Alto Medical Staffs
1959-60					
1960-61	94			267	361
1961-62	117			475	592
1962-63	103			429	532
1963-64	141			497	638
1964-65	145			502	647
1965-66	142			491	633
1966-67	145			523	668
1967-68				512	
	Full-Time Faculty	Clinical (Voluntary) Faculty	Non-Clinical Faculty	Subtotal - Community	Total Medical Staff
1968-69		230	127	372	
1969-70	165	262	136	398	563
1970-71	195	283	129	425	607
1971-72	199	289	136	425	624
1972-73	201	298	140	438	639
1973-74	226	308	130	438	664
1974-75	251	327	132	459	710

Source: 1967 Hospital Annual Report (1960-61 - 1966-67); Jane Pelton, Hospital Administration (1967-68 - present).

Notes: 1968-69 Community Subtotal includes 15 members of the full-time faculty.

TABLE 24: NET SQUARE FOOTAGE OF ACADEMIC RESERVE AND BREAKDOWN OF MEDICAL CENTER SPACE, 1974

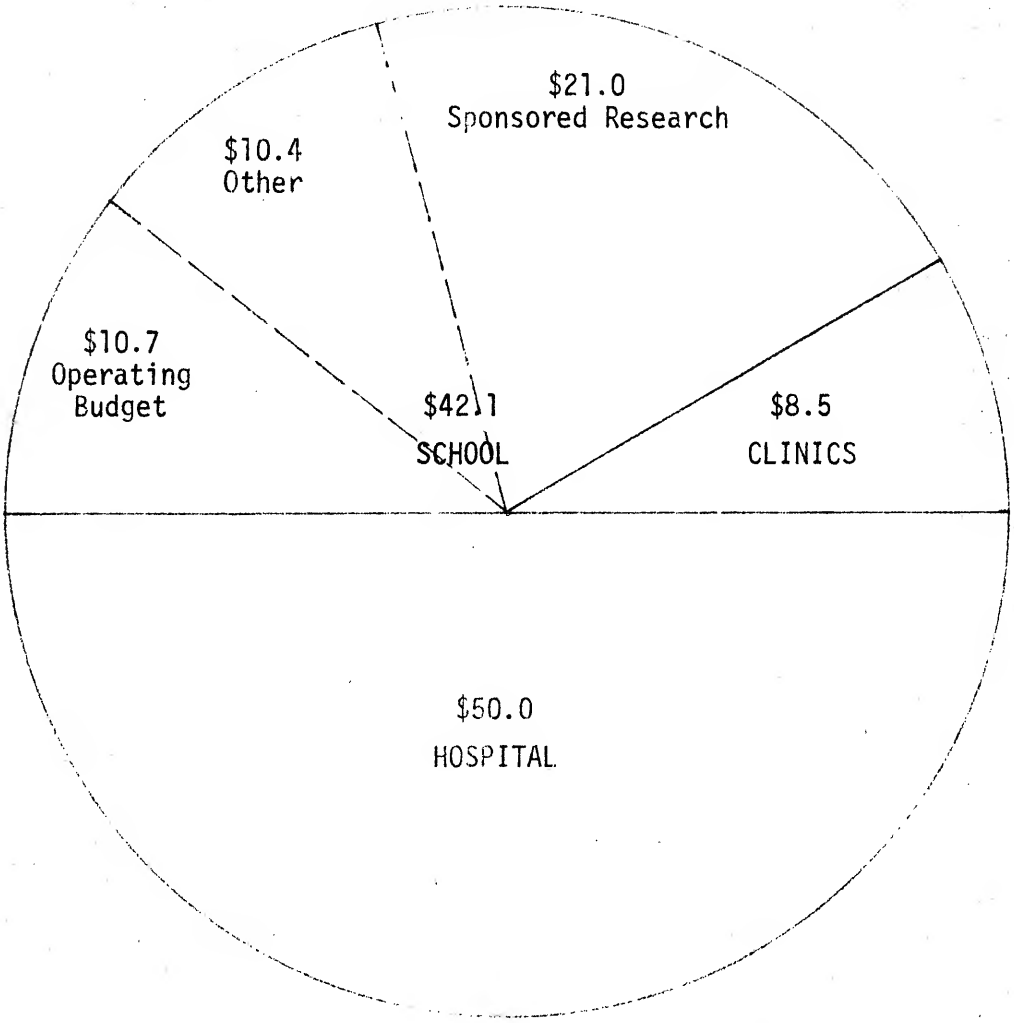
	Net Square Footage	Percent of Total
Net Square Footage of Academic Reserve		
Business	107,000 nsf	2%
Earth Sciences	107,000	2
Education	85,000	2
Engineering	369,000	7
Humanities and Sciences	770,000	14
Law	64,000	1
Medicine	406,000	7
Independent Labs, Institutes, Other, SCIP	271,000	5
University Central Libraries	226,000	4
General Classrooms - Registrar	116,000	2
Student Services	201,000	4
Other	408,000	7
Subtotal - Academic Facilities	3,130,000	56
Athletic and Recreation Facilities	173,000	3
Stanford University Hospital and Clinics	302,000	5
Student Residences	2,003,000	36
Total - Academic Reserve	5,608,000 nsf	100%
Breakdown of Medical Center Space		
School of Medicine	406,000	57
Clinics	32,000	5
Hospital	270,000	38
Total	708,000 nsf	100%

12%

Source: Susan Schofield, University Facilities Planning, Construction, and Utilization Office (2/74 University Space Inventory).

Notes: The Academic Reserve excludes land development areas (e.g., Shopping Center and Industrial Park), agricultural and undesignated areas, and non-University owned buildings.

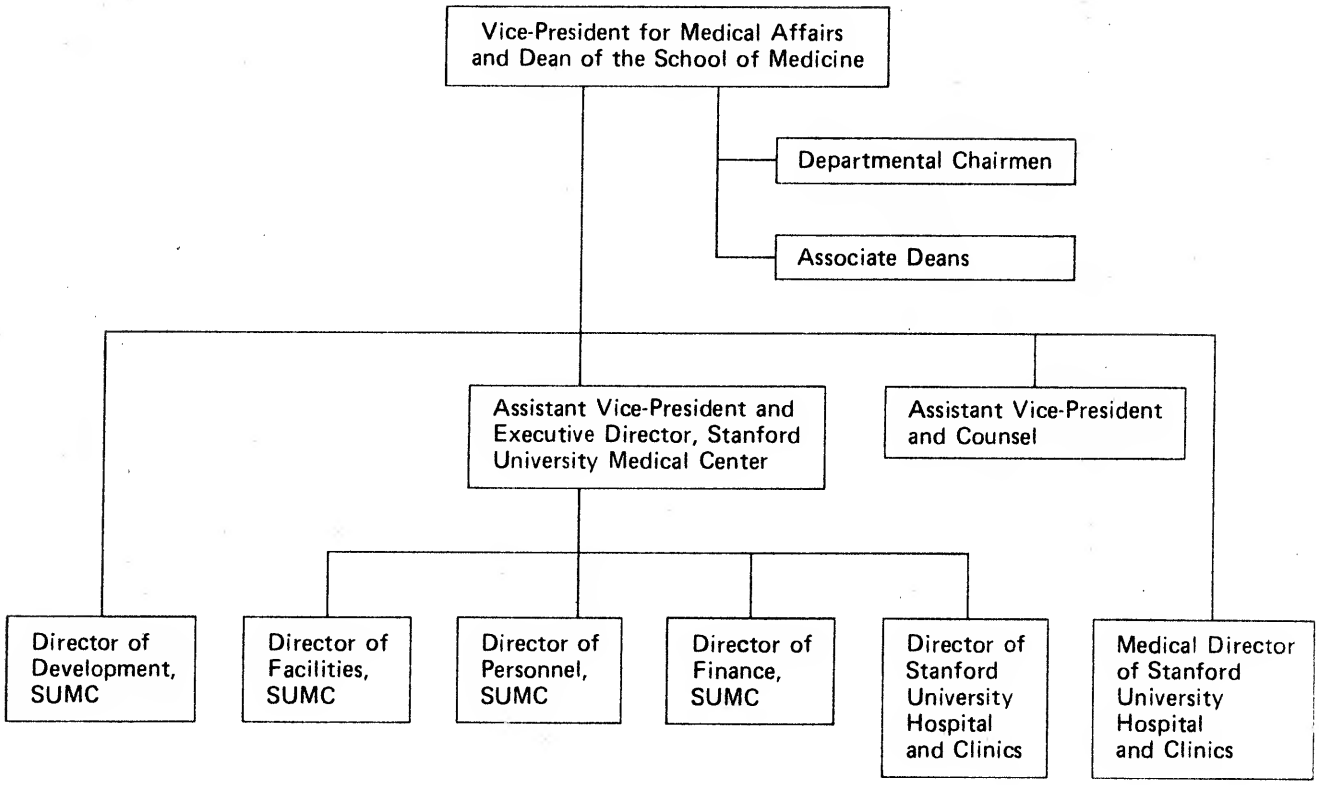
TABLE 25: MEDICAL CENTER EXPENSE, 1974-75



TOTAL = $100.6 million

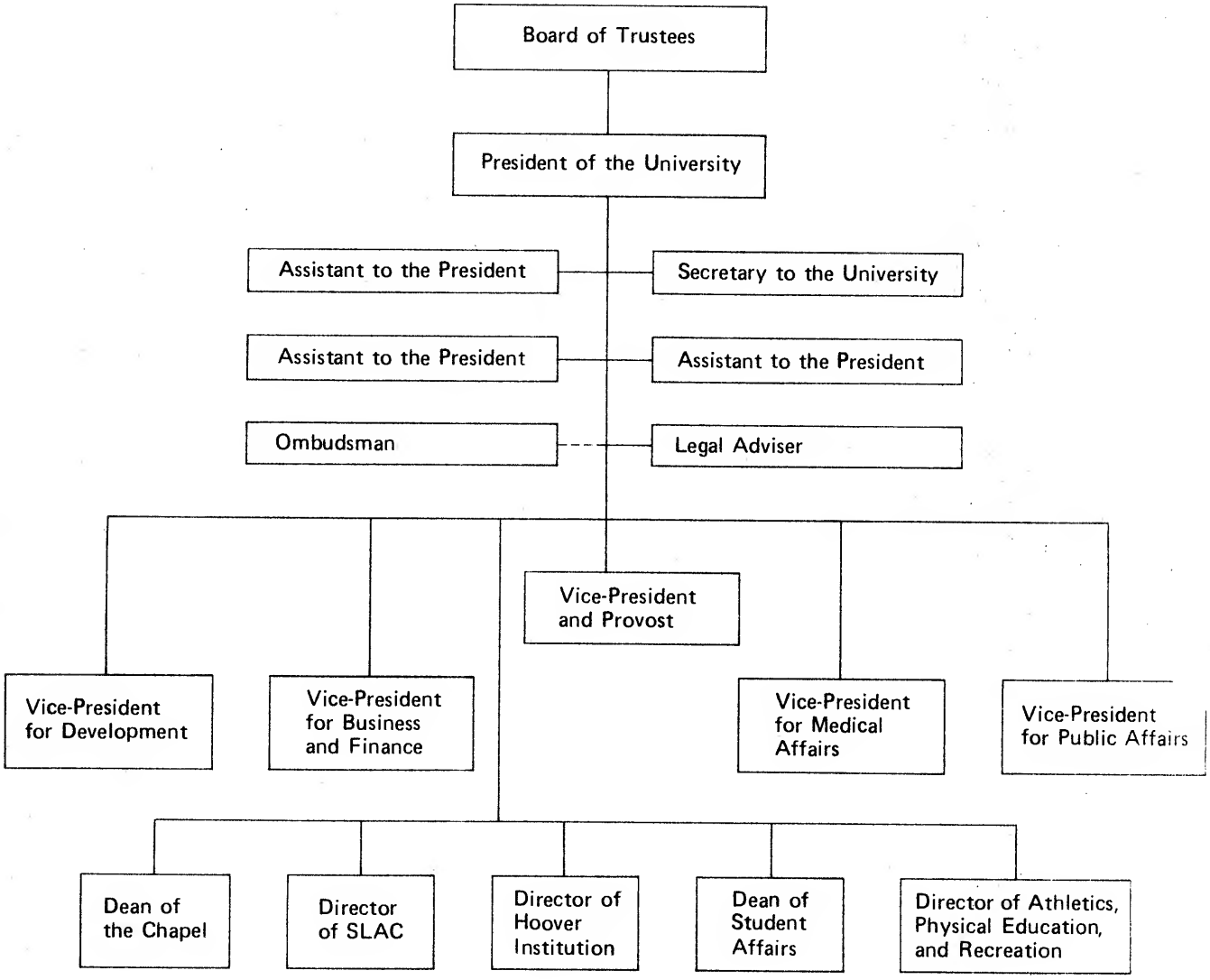
Source: Marjorie Johnson, Financial Analyst, Medical School Finance.

TABLE 26: VICE-PRESIDENT FOR MEDICAL AFFAIRS



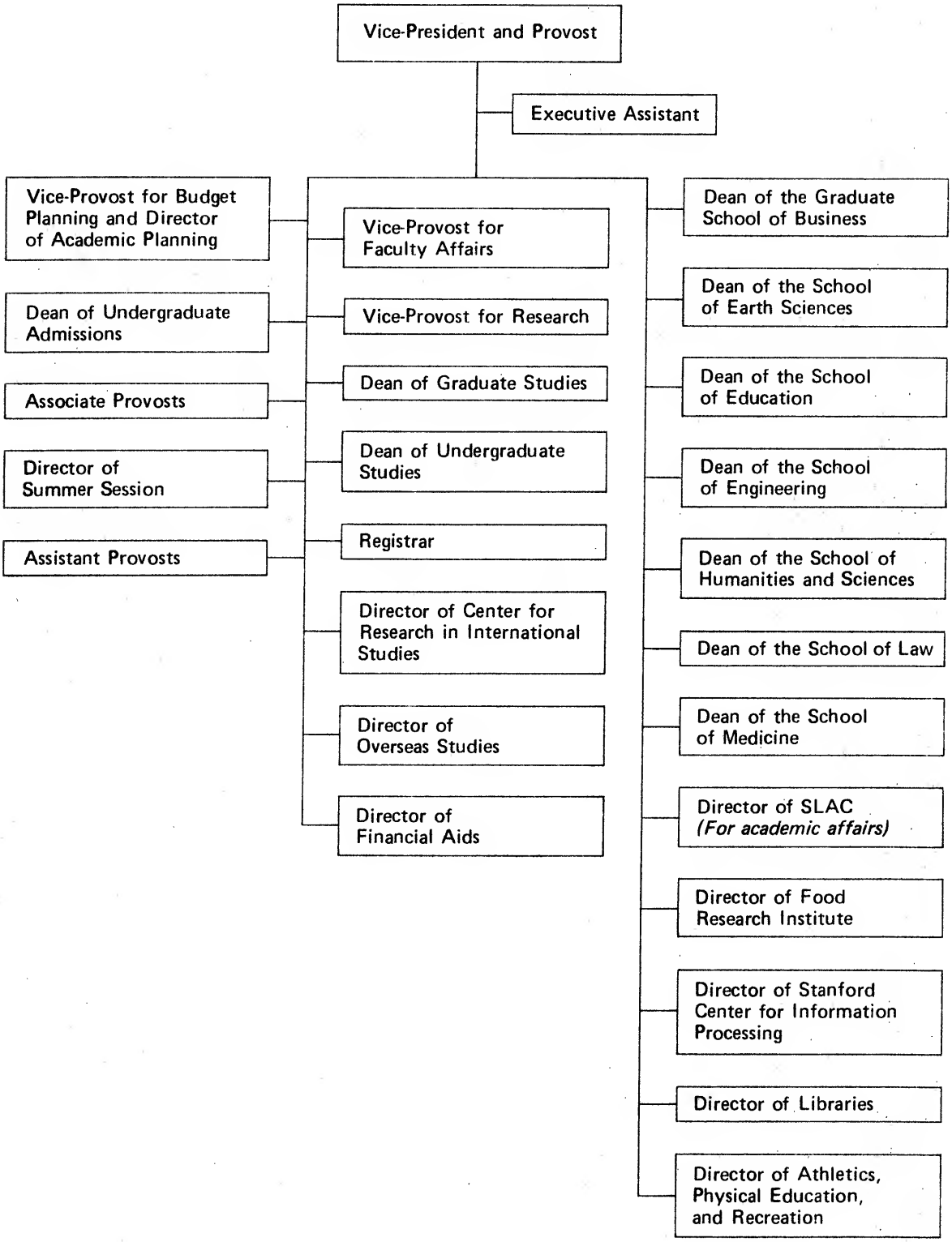
Source: Stanford University Faculty Handbook, November 1975.

TABLE 27: OFFICERS OF THE UNIVERSITY



Source: Stanford University Faculty Handbook, November 1975.

TABLE 28: VICE-PRESIDENT AND PROVOST



Source: Stanford University Faculty Handbook, November 1975.

TABLE 29: MEDICAL SCHOOL FACULTY, BY DIVISION AND LOCATION, 1974-75 (as of 9/1/74) - Page 1

	At Stanford	At Other Locations	Total
Basic Science Departments:			
Anatomy	11		11
Biochemistry	11		11
Genetics	7		7
Medical Microbiology	10		10
Pharmacology	10		10
Physiology	10		10
Subtotal - Basic Sciences	59		59
Clinical Science Departments:			
Anesthesia	25.5	5.5	31
Cardiovascular Surgery	4		4
Dermatology	7	1	8
Family, Community & Preventive Medicine			
Biostatistics			4
Clinical Social Work			10
Health Services Administration			2
International Health			1
Preventive Medicine			5
Other			4
	26		26
Gynecology and Obstetrics	4	1	5
Medicine			
Ambulatory Medicine			8
Cardiology			12
Clinical Pharmacology			3
Endocrinology			6
Gastroenterology			7
Hematology			8
Immunology			6
Infectious Diseases			5
Metabolic Diseases			3
Nephrology			3
Oncology			3
Respiratory Diseases			4
Other			4
	56	16	72
Neurology	9	4	13
Pathology	19	5	24

TABLE 29: MEDICAL SCHOOL FACULTY, BY DIVISION AND LOCATION, 1974-75 (as of 9/1/74) - Page 2

	At Stanford	At Other Locations	Total
Clinical Science Departments (continued):			
Pediatrics	18.5	5.5	24
Psychiatry & Behavioral Sciences	34	11	45
Radiology			
Diagnostic Radiology			22
Nuclear Medicine			6
Radiation Therapy			11
Radiobiology			4
Other			1
	36	8	44
Surgery			
General			9
Neurosurgery			3
Ophthalmology			6
Orthopedics			6
Otolaryngology			7
Plastic & Reconstructive			4
Thoracic			2
Urology			8
Other			1
	34	12	46
Subtotal - Clinical Sciences	273	69	342
Physical Therapy:			
Subtotal - Physical Therapy	8		8
Total	340	69	409

Source: Office of the Medical School Associate Dean for Faculty Affairs.

TABLE 30: MEDICAL SCHOOL FACULTY, BY RANK, 1959-60 - PRESENT

	59-60	60-1	61-2	62-3	63-4	64-5	65-6	66-7	67-8	68-9	69-70	70-1	71-2	72-3	73-4	74-5	75-6
TENURE LINE																	
Tenured																	
Professor	46	44	46	48	49	53	58	61	65	74	80	84	87	99	103	110	105
Associate Professor	8	9	14	18	21	28	39	42	44	49	46	50	49	48	40	41	42
Assistant Professor	1	1	6	6	6	6	5	5	4	4	4	2	2	2	2	1	1
Subtotal - Tenured	55	54	66	72	76	87	102	108	113	127	130	136	138	149	145	152	148
Non-Tenured																	
Professor												1	1	1	1	2	3
Associate Professor	18	20	24	27	29	25	20	17	14	13	14	17	15	13	12	9	10
Assistant Professor	27	43	47	66	75	93	95	99	112	125	117	110	104	104	103	100	106
Instructor	32	31	44	53	49	45	43	40	38	33	30	29	22	9	5	5	
Subtotal - Non-Tenured	77	94	115	146	153	163	158	156	164	171	161	157	142	127	121	116	119
SUBTOTAL - TENURE LINE	132	148	181	218	229	250	260	264	277	298	291	293	280	276	266	268	267
NON-TENURE LINE																	
Adj. Prof. (R) - Sr. Sci.		1	1	1	1	2	3	5	7	8	8	10	11	11	12	16	14
Adj. Prof. (T) - Sr. Lect.											1	1	1	1	1	3	3
Prof./Assoc. Prof. Clin. Subj.											4	7	7	7	6	6	9
Sr. Attending Physician									1	3				6	14	21	19
Attending Physician														7	15	20	18
(Total - "Academic Council")	(132)	(149)	(182)	(219)	(230)	(252)	(263)	(269)	(285)	(309)	(304)	(311)	(299)	(308)	(314)	(334)	(330)
Lecturer	12	10	9	6	10	9	2	6	12	9	10	12	12	19	11	15	15
Acting	2	2	7	8	14	20	6	32	37	23	18	31	26	24	17	26	27
Consulting															6	7	10
Visiting		3	1	2	3	2	26	8	10	21	13	14	18	20	20	13	19
Emeritus (Active)							1	4	4	3	4	5	4	4	4	8	12
By Courtesy												3	3	3	5	6	5
SUBTOTAL - NON-TENURE LINE	14	16	18	17	28	33	38	55	71	67	58	83	82	102	111	141	151
TOTAL FACULTY	146	164	199	235	257	283	298	319	348	365	349	376	362	378	377	409	418
Physician Specialist														12	16	37	43

Source: Office of the Medical School Associate Dean for Faculty Affairs.

TABLE 31: PROFESSORS, ASSOCIATE PROFESSORS, & ASSISTANT PROFESSORS, TOTAL UNIVERSITY & MEDICAL SCHOOL: TOTALS, PERCENTAGE TENURED, AND MEDICAL SCHOOL AS A PERCENTAGE OF TOTAL UNIVERSITY, 1959-60 - PRESENT

Academic Year	Total University		Medical School		Medical School as a Percentage of Total University
	Total	% Tenured	Total	% Tenured	
1959-60	571		100	55.0%	17.5%
1960-61	628		117	46.2	18.6
1961-62	691		137	48.2	19.8
1962-63	731		165	43.6	22.6
1963-64	783		180	42.2	23.0
1964-65	820		205	42.4	25.0
1965-66	845		217	47.0	25.7
1966-67	885		224	48.2	25.3
1967-68	938		239	47.3	25.5
1968-69	993		265	47.9	26.7
1969-70	1,019		261	50.2	25.6
1970-71	1,031	65.5%	263	52.9	25.5
1971-72	1,026	65.8	259	56.0	25.2
1972-73	1,035	65.3	264	56.1	25.5
1973-74	1,040	66.0	257	56.4	24.7
1974-75	1,033	68.0	258	58.1	25.0

Source: Christine Coffey's year-end Academic Council counts, which exclude administrators not holding professorial appointments, other non-professional personnel, and assistant professors subject to Ph.D. (University, 1959-60 - 1969-70); Dr. John Wilson, Medical School Associate Dean for Faculty Affairs (Medical School, 1959-60 - 1969-70); Don Gallagher's Academic Planning Office Professorial Faculty Data File, as of September 1 of the academic year, including assistant professors subject to Ph.D. (University and Medical School, 1970-71 - present).

Notes: Dr. Wilson's data on Medical School for 1970-71 to the present differ slightly from those of the Academic Planning Office.

TABLE 32: FACULTY EFFORT REPORTS, 1975-76

Department	Instruction	Research	Patient Care
Basic Sciences:			
Anatomy	67%	33%	
Biochemistry	69	29	2%
Genetics	49	49	2
Medical Microbiology	56	43	1
Pharmacology	53	37	10
Physiology	57	43	
Subtotal	60	38	2
Clinical Sciences:			
Anesthesia	27	20	53
Cardiovascular Surgery	16	27	57
Dermatology	48	32	20
Family, Community & Preventive Medicine	55	35	10
Gynecology & Obstetrics	50	13	37
Medicine	40	33	27
Neurology	42	41	17
Pathology	39	24	37
Pediatrics	42	29	29
Psychiatry & Behavioral Sciences	51	36	13
Radiology	25	31	44
Surgery	36	23	41
Subtotal	38	29	33
Physical Therapy	81	14	5
Total	42%	31%	27%

Source: Medical School Business and Finance Office.

Notes: Data based on questionnaire distributed annually. Figures reflect responses from Medical School faculty based at Stanford only; faculty based at affiliated institutions, e.g., Santa Clara Valley Medical Center, are not included.

TABLE 33: STANFORD UNIVERSITY ACADEMIC SALARIES - Page 1

1974-75 Salaries

25th Percentile	75th Percentile	Professors:	Number	Median	Mean
$23,875	$ 32,650	Business	26	$27,700	$27,792
22,600	25,700	Earth Sciences	19	23,200	24,595
22,750	30,075	Education	20	25,100	26,280
22,000	27,500	Engineering	100	24,800	24,968
21,125	28,000	H & S - Humanities	77	25,000	25,232
22,750	30,000	H & S - Social Sciences	57	26,500	26,552
22,500	29,750	H & S - Sciences & Math.	76	25,500	26,135
27,438	34,250	Law	24	32,000	31,135
21,844	26,550	Other	21	24,450	24,789
22,500	29,000		420	25,500	25,984
26,044	36,375	Medicine	105	30,750	31,304
23,000	30,300	All Schools Combined	525	26,500	27,048
		Associate Professors:			
$18,075	$19,757	Business	12	$18,925	$19,216
17,500	21,000	Earth Sciences	7	19,500	19,364
18,112	20,850	Education	9	20,000	19,692
16,288	18,025	Engineering	12	17,400	17,279
15,250	17,938	H & S - Humanities	42	16,875	16,810
17,000	19,288	H & S - Social Sciences	22	18,000	18,236
16,750	19,000	H & S - Sciences & Math.	19	17,300	17,639
20,563	23,125	Law	8	21,625	21,938
15,188	17,875	Other	9	15,638	15,958
16,500	19,063		140	17,675	17,944
23,307	30,615	Medicine	50	26,571	26,211
17,000	21,750	All Schools Combined	190	18,300	20,120
		Assistant Professors:			
$15,373	$16,588	Business	14	$16,000	$16,032
14,100	16,575	Education	5	16,400	15,550
14,075	16,100	Engineering	22	15,350	15,457
12,000	13,950	H & S - Humanities	55	13,000	13,028
12,500	14,200	H & S - Social Sciences	35	13,950	13,606
12,000	14,200	H & S - Sciences & Math.	33	13,000	13,291
12,750	14,063	Other	6	13,282	13,219
12,750	15,000		174	13,750	13,912
20,250	24,000	Medicine	99	22,500	22,256
13,400	21,000	All Schools Combined	273	15,100	16,938

TABLE 33: STANFORD UNIVERSITY ACADEMIC SALARIES - Page 2

Comparison of Mean Salaries - 1968-69 - 1974-75

Professors:	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Business	$20,479	$21,625	$22,564	$23,515	$24,919	$25,876	$27,792
Earth Sciences	18,899	19,105	20,075	20,790	21,921	23,263	24,595
Education	18,607	19,581	21,200	22,389	23,598	24,879	26,280
Engineering	19,757	20,775	21,520	21,899	22,531	23,544	24,968
H & S, Humanities	19,104	19,994	20,319	21,055	22,192	23,114	25,232
H & S, Social Sciences			21,649*	22,490	23,385	24,760	26,552
H & S, Sciences & Math.	20,105	21,061	21,652	22,421	23,250	24,380	26,135
Law	23,583	25,288	26,413	27,800	28,735	29,767	31,135
Medicine	20,520	21,693	23,440	24,647	26,236	28,476	31,304
Other				21,815	22,596	23,777	24,789
Combined Mean	$19,833	$20,844	$21,833	$22,702	$23,815	$25,072	$27,048
Associate Professors:							
Business	$15,177	$16,350	$16,665	$16,862	$17,938	$18,000	$19,216
Earth Sciences	15,650	16,320	16,967	16,422	17,163	18,838	19,364
Education	15,033	13,250	14,967	16,171	17,457	18,138	19,692
Engineering	14,300	15,325	16,034	16,879	17,434	17,339	17,279
H & S, Humanities	13,610	14,190	14,506	15,006	15,596	15,987	16,810
H & S, Social Sciences			15,230*	15,969	16,879	17,257	18,236
H & S, Sciences & Math.	14,257	14,708	15,050	15,271	15,733	16,658	17,639
Law	16,690	17,383	17,180	18,664	19,594	20,536	21,
Medicine	17,004	17,932	19,775	20,780	22,344	24,520	26,211
Other				13,748	14,538	15,288	15,958
Combined Mean	$15,011	$15,712	$16,831	$17,499	$18,355	$19,233	$20,120
Assistant Professors:							
Business	$12,206	$13,316	$13,707	$14,380	$14,913	$15,578	$16,032
Education	11,115	12,108	12,875	13,235	14,235	15,236	15,550
Engineering	12,445	13,550	13,757	14,127	14,404	14,706	15,457
H & S, Humanities	10,341	10,960	11,221	11,723	12,267	12,614	13,028
H & S, Social Sciences			11,880*	11,841	12,539	13,013	13,606
H & S, Sciences & Math.	10,125	10,793	11,285	11,756	12,476	12,727	13,291
Medicine	14,140	14,960	16,605	16,935	18,114	20,049	22,256
Other				12,340	13,458	13,611	13,219
Combined Mean	$11,815	$13,011	$14,049	$14,118	$14,942	$15,696	$16,938

*Prior to 1970-71, Humanities and Social Sciences were combined because of lack of historical statistical data for the separation. The two years (1968-69 and 1969-70) comparative statistics are therefore inconsistent with the 1970-71, 1971-72, 1972-73, 1973-74 and 1974-75 Humanities and Social Sciences - Humanities data.

TABLE 33: STANFORD UNIVERSITY ACADEMIC SALARIES - Page 3

Source: Office of Management and Financial Planning, Business and Finance.

Notes:

1. Individuals on sabbatical leave or leave without salary have been included at their annual base rate.

2. "Visiting", "Acting", "Emeritus", "Part-Time", and "Open" appointments have been omitted.

3. "Split" appointments have been included in only one department, since 1970-71. In prior years, "Split" appointments were included in each department which had a portion of the salary.

4. Population for this report is based upon preliminary figures from the Academic Planning Office's 1974-75 Professional Faculty Data File, with the following adjustments:

Total Professional Faculty Data File	
Base as of September 1, 1974	1,033
Less Part-time appointments	22
Administration (incl. all deans of students)	19
Non-teaching associate deans	3
Professor with no salary information	1
Net Population for this Report	988

5. Academic salaries generally are on a nine-month basis. Appointments of longer duration have been adjusted to a nine-month equivalent.

6. In this report, H & S - Humanities includes the following departments: (1) Art; (2) Asian Languages; (3) Religious Studies; (4) Classics; (5) Comparative Literature; (6) English; (7) French and Italian; (8) History; (9) Music; (10) Philosophy; (11) Humanities Special Programs; (12) German; (13) Slavic Languages and Literature; (14) Spanish and Portugese; (15) Drama; and (16) Linguistics.

   H & S - Social Sciences includes the following departments: (1) Anthropology; (2) Communication; (3) Economics; (4) Political Science; (5) Psychology; and (6) Sociology.

   H & S - Sciences and Mathematics includes the following departments: (1) Biological Sciences; (2) Hopkins Marine Station; (3) Chemistry; (4) Computer Science; (5) Mathematics; (6) Applied Physics; (7) Physics; and (8) Statistics.

7. In this report, "Other" includes the Food Research Institute, Physical Education, Physical Science, Overseas Campuses, and SLAC.

8. In order to protect the privacy of individuals, the salary dollars are not included for those units having less than five faculty members in a given rank. These salary dollars are included in the combined totals.

TABLE 34: RANK/AGE/TENURE DISTRIBUTION OF STANFORD PROFESSORIAL FACULTY[1], 1974-75 (as of 9/1/74) - Page 1

School, Unit or Area	Professors Total	Professors Ave. Age[2]	Associate Professors Total	Associate Professors Ave. Age	Associate Professors Tenured	Assistant Profs. Total	Assistant Profs. Ave. Age	All Ranks Combined Total	All Ranks Combined Ave. Age	All Ranks Combined Tenured	All Ranks Combined Non-Tenured	All Ranks Combined % Tenured
Business	31	48	12	34	2	14	30	57	41	33	24	58
Earth Sciences	20	52	7[9]	40	4	3	33	30	47	24	6	80
Education	22	53	9	37	6	6[10]	35	37	46	28	9	76
Engineering	105	48	12	35	5	22[9]	32	139	45	110	29	79
Humanities and Sciences	223	50	86	39	76	131	32	440	42	300	140	68
[H&S--Humanities][3]	[81]	[51]	[45]	[41]	[42]	[56]	[34]	[182]	[43]	[124][13]	[58]	[68]
[H&S--Sciences and Math][4]	[84][9]	[49]	[19][9]	[36]	[15]	[33]	[30]	[136]	[42]	[99]	[37]	[73]
[H&S--Social Sciences][5]	[58]	[50]	[22]	[36]	[19]	[42][12]	[32]	[122]	[41]	[77]	[45]	[63]
Law	26	45	8	36	1	1	29	35	43	27	8	77
SUBTOTAL	427	49	134	38	94	177	32	738	43	522	216	71
Medicine	107	51	50	43	42	101	36	258	43	150	108	58
[Basic Sciences][6]	[24]	[51]	[6]	[45]	[6]	[6][9]	[30]	[36]	[47]	[30]	[6]	[83]
[Clinical Sciences][7]	[82][10]	[50]	[44][10]	[43]	[36]	[95][10]	[36]	[221]	[43]	[119][13]	[102]	[54]
[Allied Health Sciences][8]	[1]	[64]	[0]	--	--	[0]	--	[1]	[64]	[1]	[0]	[100]
SUBTOTAL	534	50	184	39	136	278	34	996	43	672	324	67
Food Research Institute	8	49	2	35	2	3	30	13	42	10	3	77
Physical Education	0	--	3	55	3	0	--	3	55	3	0	100
Physical Sciences	1	62	0	--	--	0	--	1	62	1	0	100
Overseas Campuses	0	--	2[9]	50	2	0	--	2	50	2	0	100
SLAC	13[11]	46	2[10]	33	2	3[12]	33	18	42	15	3	83
UNIVERSITY TOTAL	556	49	193	39	145	284	33	1033	43	703	330	68

TABLE 34: RANK/AGE/TENURE DISTRIBUTION OF STANFORD PROFESSORIAL FACULTY, 1974-75 (as of 9/1/74) - Page 2

Source: Don Gallagher, Academic Planning Office.

Notes:

1. The source for this report is the Academic Planning Office's Professional Faculty Data File, which is comprised annually of all those individuals holding an appointment of Professor, Associate Professor, or Assistant Professor effective on or before September 1st of the academic year (in this case, September 1, 1974). Included are those holding such an appointment who have administrative responsibilities, take any type of leave from duty, or whose appointments are part-time, "subject to Ph.D.", or coterminous with continued availability of funds. All other appointments--such as Instructors, Lecturers, and those designated "visiting", "acting", or "emeritus"--are excluded from the population.
2. This figure is the mean age, calculated by dividing total years-of-age by total number of faculty.
3. Humanities Area includes: Art, Asian Languages, Classics, Comparative Literature, Drama, English, French and Italian, German Studies, History, Humanities Special Programs, Linguistics, Music, Philosophy, Religious Studies, Slavic Languages, Spanish and Portuguese.
4. Sciences and Math Area includes: Applied Physics, Biological Sciences, Chemistry, Computer Science, Hopkins Marine Station, Mathematics, Physics, Statistics.
5. Social Sciences Area includes: Anthropology, Communication, Economics, Political Science, Psychology, Sociology.
6. Basic Sciences Area includes: Anatomy, Biochemistry, Genetics, Medical Microbiology, Pharmacology, and Physiology.
7. Clinical Sciences Area includes: Anesthesia, Cardiovascular Surgery, Dermatology, Family, Community, and Preventive Medicine, Gynecology and Obstetrics, Medicine, Neurology, Pathology, Pediatrics, Psychiatry and Behavioral Sciences, Radiology, Surgery.
8. Allied Health Sciences include: Nursing, Physical Therapy.
9. Includes one coterminous appointment.
10. Includes two coterminous appointments.
11. Includes eleven coterminous appointments.
12. Includes three coterminous appointments.
13. Includes one tenured Assistant Professor.

TABLE 35: CHANGES IN MEDICAL SCHOOL FACULTY STATUS, 9/2/74 - 9/1/75

	Academic Council					Non-Academic Council					Total Faculty				
	New Appts.	Promo-tions	Re-appts.	Termi-nations, etc.	Addns. to Faculty	New Appts.	Promo-tions	Re-appts.	Termi-nations, etc.	Addns. to Faculty	New Appts.	Promo-tions	Re-appts.	Termi-nations, etc.	Addns. to Faculty
Basic Sciences															
Anatomy	-	-	1	-	-	7	-	5	5	2	7	-	6	5	2
Biochemistry	-	-	-	-	-	1	-	2	1	-	1	-	2	1	-
Genetics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Microbiology	-	-	-	2	-2	3	-	-	-	3	3	-	-	2	1
Pharmacology	-	-	2	-	-	1	-	1	-	1	1	-	3	-	1
Physiology	-	-	-	1	-1	2	-	3	1	1	2	-	3	2	-
	-	-	3	3	-3	14	-	11	7	7	14	-	14	10	4
Clinical Sciences															
Anesthesia	4	-	4	4	-	4	-	2	2	2	8	-	6	6	2
Cardiovascular Surgery	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-
Dermatology	3	-	1	2	1	3	-	2	2	1	6	-	3	4	2
Family, Community, and Preventive Medicine	2	-	2	1	1	-	-	9	2	-2	2	-	11	3	-1
Gynecology and Obstetrics	-	-	1	1	-1	-	-	-	-	-	-	-	1	1	-1
Medicine	5	1	7	4	1	11	-	4	4	7	16	1	11	8	8
Neurology	1	-	-	2	-1	-	-	1	-	-	1	-	1	2	-1
Pathology	4	1	6	4	-	5	-	-	4	1	9	1	6	8	1
Pediatrics	3	1	-	2	1	-	-	2	1	-1	3	1	2	3	-
Psychiatry	7	2	2	7	-	2	-	2	10	-8	9	2	4	17	-8
Radiology	5	1	5	3	2	5	-	4	7	-2	10	1	9	10	-
Surgery	1	-	3	5	-4	13	-	4	5	8	14	-	7	10	4
	35	7	31	35	-	43	-	30	37	6	78	7	61	72	6
Physical Therapy	-	-	-	1	-1	1	-	4	1	-	1	-	4	2	-1
TOTAL	35	7	34	39	-4	58	-	45	45	13	93	7	79	84	9

Source: Office of the Medical School Associate Dean for Faculty Affairs.

TABLE 36: COMPARISON OF BEDS AVAILABLE FOR MEDICAL STUDENT TEACHING WITH NATIONAL MODEL

		Actual Teaching Beds			
Beds*	Model** (for 86 students)	Stanford University Hospital (full-time faculty)	S.U.H. (community physicians) & affiliated hospitals	Total	Deficit (for 86 students)
Medicine***	413	59	208	267	146
Pediatrics	138	22	95	117	21
Surgery	430	93	277	370	60
Total	981	174	580	754	227

Source: "Preliminary Report on Stanford University Hospital Expansion (Phase II)" submitted to the University Board of Trustees, June 15, 1973.

Notes:
* Community physician beds at Stanford University Hospital adjusted to reflect teaching utilization intensity factor of 0.5; beds at Santa Clara Valley Medical Center adjusted by factor of 0.7.
** Based on "Toward a Definition of Department Size: A Study Based on Six Departments in Twenty-Five Medical Schools," by Cheves McC. Smythe, M.D., Journal of Medical Education, Volume 45, September 1970.
*** Including dermatology, neurology, and physical medicine and rehabilitation.